Government Science College Gandhinagar

Government of Gujarat

Affiliated to

Gujarat University, Ahmedabad

SELF STUDY REPORT

(For Re-Accreditation)

(2nd CYCLE)

Submitted to

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) BENGALURU

(March-2017)

GOVERNMENT SCIENCE COLLEGE

SECTOR-15

GANDHINAGAR-382 016

GUJARAT

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Website: gscgandhinagar.in

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GUJARAT

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PREFACE

NAAC Bangalore has a clear-cut policy towards Accreditation and Assessment of Higher Educational Institutions in India. The criteria, sub-sections under each category as well as the weightage accorded to each category are based on the type of institutions being accredited, are also well laid down.

However, when it comes to preparing the institution for accreditation over a period of 5 years several aspects require greater understanding, awareness among different stake holders, a definite action plan to generate, collate, preserve and present the data in a lucid fashion so that each constituent of the institution is aware of its responsibilities and the expectations of the University and the visiting team.

For Government Science College-Gandhinagar, Accreditation is a unique opportunity to plan the course of our future. Hon. Principal, Government Science College-Gandhinagar, immediately formed a Steering Committee for preparing the SSR along with an Internal Quality Assurance Cell (IQAC) to gear up the college Accreditation.

The SSR is divided into three parts. Part A consists of institutional profile, Part B consists of criterion-wise input and Part C has Evaluative Reports of The Departments.

Attempt has been made in the SSR to clearly reflect as to how the College has steered its path for the quality sustenance and enhancement after first cycle of accreditation.

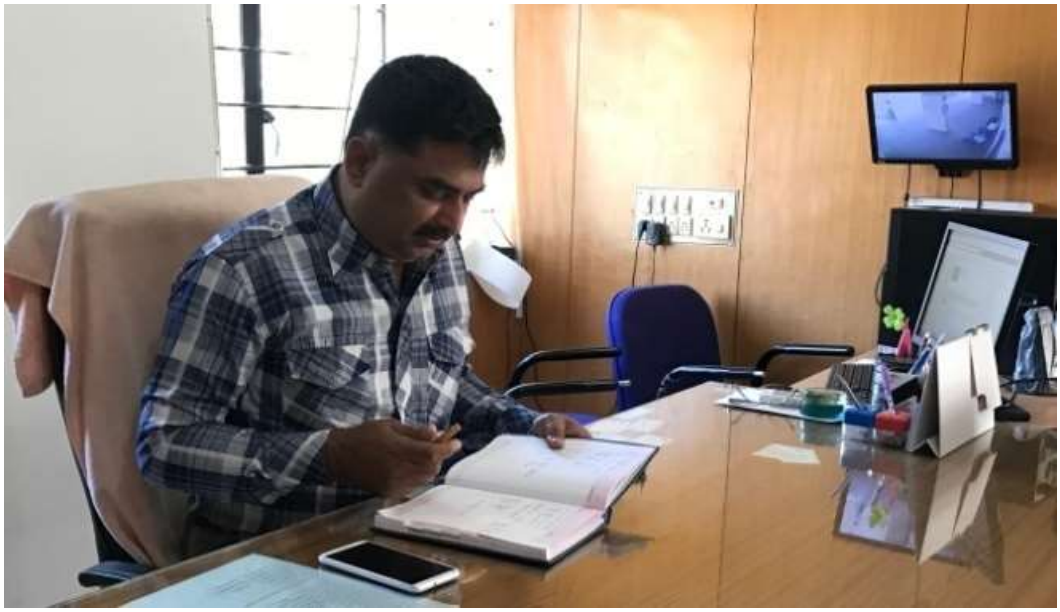
The present report is the outcome of the participatory process of all the departments and the administrative sections. Dr. K. G. Chhaya, Principal and Chairman of IQAC of this College, took keen interest and provided a decisive leadership in shaping the report. All the staff members provided the requisite inertia to smoothen the process of compiling the report together and provided rare administrative and moral support. The Head of various Departments and faculty members have readily provided all the necessary inputs from time to time. The entire team of the College officials was an excellent assistance in the process. I take this opportunity to thank all of them for their most willing and cooperative roles without which this task would have been impossible.

I acknowledge the contribution made by all those who helped us in one way or the other, directly or indirectly and sincerely thank them.

Date:
Place: - Gandhinagar

Dr. Pragna A. Vadher
Coordinator, NAAC
Government Science College
Gandhinagar

FROM THE PRINCIPAL'S DESK



It has been observed during last five-seven years that the International need has compelled to shift paradigm of higher education in Gujarat state. Therefore, structure of entire higher education system is redesigned to achieve mainly the needs of students, employment and economic development through education in addition to merely an education. Competition for students is becoming grim, similarly any academic institutions put efforts to achieve new heights in competition with another organization. As a result of this, a student gets much stronger identification. By giving proper placement to its students, academic institute increases its intake & expands by itself. Institution attains strength by fresh students by which it come up with external diversity. Well-qualified academic staffs, competent students, education with extra-curricular activities and participation of students in research and industry-institute collaboration definitely give full benefit of the time spent in academic institute. Our institute will offer & help in achieving your desired goals by providing all opportunities.

Date:

Place: Gandhinagar

-

Dr. K G Chhaya
Principal
Government Science College
Gandhinagar

EXECUTIVE SUMMARY

Gandhinagar, the new capital city of the state of Gujarat was established on 2nd August 1965, which is located approximately 25 km north of old capital city of Ahmedabad. The city of Gandhinagar lies on the bank of river Sabarmati and it is almost at centre point of industrial corridor between Delhi, the national capital city of India and Mumbai, The financial capital of India. Gandhinagar has been selected as one of the hundred Indian cities to be developed as a smart city under PM Narendra Modi's flagship Smart Cities Mission.

Since its inception, GSC-G has remained a pioneer and successful institute in dissemination of science education in the district. This college has passed through many ages and witnessed so many changes. During the initial time, only the children of government officials were the major part of the strength but later on people from nearby rural area also undertaken higher education from this institute. In 1992, this college was bifurcated from Government Art and Science College, Gandhinagar and came into existence as a separate institution. Government Science College, Gandhinagar today is obviously one of the leading and best of its kind in the Gujarat University. Many other government colleges are associated with this institute on academic and administrative way.

This college has five departments and disseminate degree in Physics, Chemistry, Mathematics, Botany and Microbiology. Intake capacity is 520 at entry level. English is taught as a foundation subject. This college has one botanical garden, 11 laboratories with minimum capacity of 60 students at a time, 99 berths in boys' hostel, 80 students' capacity in two floored library, ladies room, DELL, BISAG (under blended learning) – a state wide classroom online learning facility, Conference room NCC, NSS. This college has two play grounds one for cricket and other for volley ball, handball and other games. We also have facilities for playing table tennis, carom. Equity – Grant from RUSA is also sanctioned this year where various activities like remedial classes, gender sensitisation, and placement / counselling cell, carrier guidance cell is undertaken. This college has established various cells like women harassment cell, Women development cell, SC/ST Cell, Anti ragging Cell, Hostel Management Committee. To maintain scientific temper regular activities are

conducted under IAPT, Eco club, Nature club, Ganit Mandal and Chemical Society. Due to increase in strength of the students, old building was extended during 2009.

If we look criteria-wise picture ours is a UG college affiliated to Gujarat University and adopted CBCS since last 5 yrs. Being a government college we do not have major role in apex bodies of university but as a part of government, we do have specific role to play in development of curricula and extra curricula also. Our immediate officers from higher level like Commissioner and Secretary Education are senate and syndicate members. We had IGNOU centre for nearly 8yrs during 2002-09.

Regarding teaching-learning and evaluation, our system is more transparent and accountable because we do not have any management seats or quota. We give full incentives as per government norms and charge very nominal fees especially girl-child is exempted from paying tuition fees at any level. Appointments are also through public service commission and CAS is also as per norms. There is no any problem regarding development grants. There is also a provision of departmental assessment which is totally absent at university or GIA. We strictly obey rules right from admission, and extend further to conduction of classes, examinations and evaluation.

Since we are running only under-graduate courses, our teaching staff members are not engaged in full research oriented work. But they keep themselves updated with recent development in respective fields by participating in conferences, attending popular lectures and also by sharing knowledge with their colleagues. Some staff members are recognized Ph D guide. There are also major and minor research projects (UGC) completed from different departments. Number of published research papers is increased during last 5yrs. More than 70% of teaching staff is Ph.D. holders or NET qualified. Library is also updated with fresh edition of books and we are also providing online library facility to all staff and students where 75000 books and 6000 journals available 24X7. We also plan to start PG courses on self-finance basis once we get approval from the government.

There are several students who earn credit for institute like selection in RD Parade, University sports team or presentation of skill at national /state level. Due to not having constant contact with our students after they pass out, it is not possible to

keep records what they do or whether they go study or job. Even though we get information from reliable sources that they do better where they go. That we know during the annual meeting of alumni.

We propose to have visionary leadership behaviour through the tendency to attain positive outcomes even by diverse teams. Past inconsistencies can be reconciled by examining the joint impact of leader behaviour and try to enhance team performance. We have put more trust on to the increase of GER, minimize drop out, effective implementation of curricula with allied activities, enhancement of academic performance and opportunity for placement and/or entrepreneurship.

Everybody has right to live in sustainable environmental conditions hence our motto remains Reduce, Reuse and Recycle. Hence, we opt for less carbon production through installation solar panels in college and hostel, car-pooling or use of CNG, tree plantation, water harvesting, use of bicycle. Social responsibilities are also part of practice under NSS and Seva-Dhara. Use of latest software for library or N-List prog and teaching learning through ICT are major attraction. Efficient functioning of women cell, counselling and placement centre add flavours to performance.

Date:
Place: Gandhinagar
-

Dr. K G Chhaya
Government Science College
Gandhinagar

SWOT Analysis

SWOT ANALYSIS OF THE INSTITUTION

Methodology Used:

- Feedback from students
- Interaction with the teachers
- Comparative Analysis with other colleges
- Getting Academic and Administrative Audit done through external government agency
- Going for Reaccreditation to determine the ranking in terms of quality at the national level

Analysis:

- Data entry of the questionnaire
- Statistical Analysis

Strengths:

- Experienced team with strong unity and ability
- Spiritual environment
- Value based education
- Reputation in Society
- Proper planning with reference to the goals
- Enough equipment with advanced technology
- Students' centre learning
- Simultaneous activities
- Research work

Weaknesses:

- Shortage of staff (Teaching and Non-teaching)
- Infrastructural renovation is required
- Time crisis

Opportunities:

- Healthy support from stake holders and administration
- Students having good values and understanding
- Scope for collaboration with various Government and non-government agencies

Threats:

- No recruitment of staff as per need/workload
- Transfers of faculties in public interest and load sharing of newly established government colleges
- No lab assistant or any other allied staff.

The "strategic plan" developed for institutional development.

- Enhance Use of ICT in teaching & learning & e-learning
    - Aim: To utilize the smart classrooms effectively and make teaching learner centred and totally replace the chalk and talk method with interactive teaching through the use of ICT
    - Requirement: To provide training to staff with increasing ICT equipment
    - Target: To arrange training programmes
    - Plan: To prepare proposals for getting financial assistance ICT grants from Government & from other sources
    - Time Period: Within two years

- Library be strengthened with addition of quality reference books/journals, besides providing computers with internet connectivity for a strong e –learning base.
  - Aim: Increase the number of reference books
  - Requirement: Invite suggestions for the books to be purchased, Raise Funds
  - Target: Arrange finance, attend book fairs, invite publishers & distributors and at least purchase 5,000 books on various subjects
  - Plan: Reduce the number of subscribed hard copies of journals and divert the money for subscription for access to e-resources
  - Upgrade the SOUL software
  - Time Period: Within 3 Years
- Set up fully equipped Science lab and promote the activities of the lab.
  - Aim: to get funds to be raised for setting up of the lab
  - Target: To prepare proposals for getting financial assistance ICT grants from Government & from other sources
  - Plan: To raise funding
  - Time Period: Setting up of lab-one year and Activities
- Special thrust on soft skill development
  - Aim: To provide training in soft skills
  - Requirement: Raise fund for inviting well qualified and professional trainers
  - Target: To provide an opportunity to the students and staff to enhance soft skills.
  - Plan: To make learning of soft skills additionally
  - Time Period: Re-scheduling the time-table to incorporate classes of soft skills- every year
- Remedial programme be initiated for the benefit of weaker / disadvantaged learners.
  - Aim: To help students bridge the gap between their acquired knowledge & required scores
  - Requirement: Faculty to help learners
  - Target: To provide a platform for improvement through personal guidance
  - Plan: Identify the weak learners and motivate them to attend remedial course Motivate teachers to conduct extra classes for the benefit of weaker / disadvantaged learners
  - Time Period: Every Year
- Focus in research
  - Aim: To increase participation in conferences, presentations, publications, research projects & research with reference to isolate the needs
  - Requirement: Create an environment for need based research
  - Target: To motivate each faculty to at least take up some need based research project
  - Plan: Award appreciation certificates to motivate researchers
  - Lessen the work load and provide reprographic facilities
  - Provide seed money for publication in international journals
  - Time Period: Every Year
- Sports facilities / infrastructure be strengthened.
  - Aim: To expand sports facility and also encourage girl's participation
  - Requirement: Time management and Motivation

  - Target: Facilitate more student participation and settlement of time table
  - Plan: Start encouraging students to take part in sports
  - Time Period: Every year
- Support to poor students
  - Aim: To provide job opportunities for less privileged students and enhance
  - career activities
  - Requirement: Proper Guidance and counselling
  - Target: Provide Career Guidance & placement
  - Plan: Popularize the Earn while Learn Scheme, waive off the fees for the needy students, create a database of the student's profile to be forwarded to donating NGOs
  - Time Period: Every year
- Start Short term Courses
  - Aim: To at least start one short term course
  - Requirement: start of full fledge DELL Lab
  - Target: To achieve success in motivating students to go in for short term courses
  - Plan: to motivate every student to join SCOPE course
  - Time Period: Every year
- The key activities proposed in the Institutional Development Proposal are linked with the results of SWOC Analysis through enough deliberations, discussions and meetings. The principal is the chief authority for designing quality measures. He discusses with the members of the IQAC first and then with the entire teaching staff before taking the matter to the management. The management is always positive to developmental and quality oriented initiatives and the measures are implemented with their consent.

  Each committee chairperson analyzes, researches and consults before undertaking any activity. For financial aid and infrastructural support the Principal provides assistance. The Principal resolves the problems and always tries to create healthy environment for student centered activities.

NAAC 2nd Cycle 2016-17

IQAC Committee

Dr. K. G. Chhaya

Principal & Chairman

Dr. C. K. Chauhan (Member Secretary & Coordinator)

Members - Head of the department

Smt. M. S. Baxi, HOD-Physics

Shri. B. K. Trivedi, HOD-Mathematics

Dr. C. C. Ambasana, HOD-Microbiology

Dr. Y. S. Patel, HOD-Chemistry

Shri. D. D. Bihola, HOD-Botany

Two members from other college

Dr. S. K. Patel

HOD Botany, Government Science College, Idar, Gujarat

Dr. K. M. Joshi

I/c Principal, M N College, Visnagar, Gujarat

Student of the college by virtue of the post

Kum. Shraddha, General Secretary of the College - 2016-17

Two members from Parents' Association

Dr. R. N. Maru

(College teacher)

Mr. Sanjay Mehta

(Social worker)

Two members from Alumni association

Mr. Uren Patel

(Business man)

Mr. Ankit Barot

(Social worker)

NAAC visit Committee

Dr. Pragna A. Vadher

(NAAC Coordinator- External)

Mr. Vivek Dave

(NAAC Coordinator- Internal)

SSR Preparation committees

Criterion-1

Dr. Chetan Ambasana(Coordinator)

Dr. Y. S. Patel
Dr. D.K. Dodiya
Shri B. K. Trivedi
Dr. K. B. Zankat

Criterion-2

Dr. P. A. Vadher(Coordinator)

Dr. C. K. Chauhan
Smt. M. S. Baxi
Dr. Aarefa Bakza
Dr. R. K. Parwani
Shri. Y. M. Patel
Shri. R. R. Patel
Dr. C. V. Shah
Kumari J. J. Vaghela

Criterion-3

Dr. J. T. Thumar(Coordinator)

Dr. B. M. Patel
Dr. J. S. Rajora
Dr. C. C. Ambasana
Dr. P. P. Prajapati
Dr. D. N. Adhyaru
Mr. K. R. Baleviya
Dr. M. Y. Barot
Mr. G. R. Patel
Jayshree Pandya – Librarian

Criterion-4

Dr. D. A. Odedara(Coordinator)

Shri. D. D. Bihola
Dr. K. B. Zankat
Dr. D. S. Gandhi
Dr. S. H. Gor
Shri. Y. M. Patel
Kumari J.J. Vaghela
Jayshree Pandya – Librarian

Criterion-5

Dr. M. M. Patel (Coordinator)

Shri. B. K. Trivedi
Smt. M. S. Baxi
Dr. S. I. Vyas
Dr. R. N. Maru
Kumari J. J. Vaghela
Chairman of Cultural committee by virtue of post

Criterion-6

Dr. K. G. Chhaya -(Coordinator)

Dr. P. A. Vadher
Dr. C. K. Chauhan
Dr. Y. S. Patel

Criterion-7

Dr. U. P. Tarpada (Coordinator)

Dr. D. H. Mehta
Dr. N. S. Mevada
Dr. D. N. Adhyaru
Mr. K. R. Baleviya
Dr. M. Y. Barot
Dr. J. P. Dalwadi

A: Profile of the College

1. Name and address of the college:

Name: **GOVERNMENT SCIENCE COLLEGE**

Address: **SECTOR-15, GANDHINAGAR**

City: **GANDHINAGAR** District: **GANDHINAGAR** State: **GUJARAT**

Pin code: **382016**

Website: **www.gscgandhinagar.in**

2. For communication:

Designation	Name	Contact no	Email
Principal	**Dr. K. G. Chhaya**	(O) 079-23222352 (M) 99090 12291 Fax: 07923222352	chhayakg@gmail.com
Steering Committee Coordinator	**Dr. P. A. Vadher**	(O) 079-23222352 (R) 079-22809128 (M) 94281 16080 Fax: 07923222352	pragnavadher@gmail.com

3. Status of Institution:

I	Affiliated College	√
II	Constituent College	X
III	Any other (Specify)	X

4. Type of Institution:

a. By Gender

I	For Men	X
II	For Women	X
III	Co-education	√

b. By Shift

I	Regular	√
II	Day	X
III	Evening	X

5. Is it a recognized minority institution? Yes [X] No [√]

If yes specify the minority status (Religious/linguistic/ any other)

(Provide the necessary supporting documents)

6. Source of funding:

I	Government	[√]
II	Grant-in-Aid	[X]
III	Self-finance	[X]
IV	Any others	[X]

7. a) Date of establishment of the college:

Day	Month	Year
15	06	1970

b) University to which the college is affiliated

(If it is an affiliated college) or which governs the college (If it is a constituent college)	Gujarat University, Ahmedabad
	----------

c) Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (If any)
i. 2 (f)	**04-03-1997**	----------
ii. 12 (B)	**04-03-1997**	----------

(The Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act has been enclosed)

d) Details of recognition/ approval by statutory /regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	----------	----------	----------	---------
ii.	----------	---------	---------	--------
iii.	----------	---------	---------	--------
iv.	----------	---------	---------	--------

(Enclose the recognition / approval letter)

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes [X] No [√]

If yes, has the College applied for availing the autonomous status?

Yes [X] No [√]

9. Is the college recognised

a. By UGC as a College with Potential for Excellence (CPE)?

Yes [X] No [√]

If yes, date of recognition:……(dd/mm/yyyy)

b. For its performance by any other governmental agency?

Yes [X] No [√]

If yes, Name of the agency……and

Date of recognition:……(dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location*	Urban
Campus area in sq. mts.	**199064.87**
Built up area in sq. mts.	**15459.32**

(*Urban, Semi-urban, Rural, Tribal, Hilly Area, any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

➢	*Auditorium/seminar complex with infrastructural facilities*						√
➢	*Sportsfacilities*						√
	•	Playground					√
	•	Swimming pool					X
	•	Gymnasium					X
➢		Hostel					
	•	Boy's Hostel					√
		i.	Number of hostels				01
		ii.	Number of inmates				93
		iii.	Facilities (mention available facilities)				**Boarding**
	•	Girl's Hostel					X
		i.	Number of hostels				X
		ii.	Number of inmates				X
		iii.	Facilities (mention available facilities)				X
	•	Working Women's Hostel					X
		i.	Number of hostels				X
		ii.	Facilities (mention available facilities)				X
➢	Residential facilities for teaching and non-teaching (give numbers available-cadre wise)						
		Teaching Staff					**10**
		Non-Teaching					**18**
	(Government and college quarters)						
➢	Cafeteria						**NO**
➢	Health centre						**NO**
➢	First aid, Inpatient, Outpatient, Emergency care facility, Ambulance:						**NO**
➢	Health centre staff						**NO**
	Qualified doctor	Full Time		X		Part Time	X
	Qualified doctor	Full Time		X		Part Time	X
➢	Facilities like banking, post office, book shops						**NO**
➢	Animal house						**NO**
➢	Biological waste disposal						**YES**
➢	Generator or other facility for management/regulation of electricity and voltage						**NO**
➢	Solid waste management						**YES**
➢	Waste water management						**NO**
➢	Water harvesting						**YES**

12. Details of programmes offered by the college (Give data for current academic year)

Sr. No.	Programme Level	Name of the Programme /Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
i.	Under-Graduate	B. Sc.	3 years	12th Sci. Pass	Gujarati	**520**	**549**
ii.	Post-Graduate	--	--	--	--	--	--
iii.	Integrated Programs PG	--	--	--	--	--	--
iv.	Ph.D.	--	--	--	--	--	--
v.	M.Phil.	--	--	--	--	--	--
vi.	Ph.D.	--	--	--	--	--	--
vii.	Certificate courses	--	--	--	--	--	--
viii.	UG Diploma	--	--	--	--	--	--
ix.	PG Diploma	--	--	--	--	--	--
x.	Any Other (specify and provide details)	--	--	--	--	--	--

13. Does the college offer self-financed Programmes?

Yes [x] No [√]

If yes, how many? [NA]

14. New programmes introduced in the college during last five years, if any?

Yes [x] No [√] Numbers [NA]

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (e.g. Physics, Botany, History etc.)	UG	PG	Research
Science	Botany, Chemistry, Physics, Mathematics, Microbiology	√		

16. Number of Programmes offered under (Programme means a degree course like BA, B.Sc., MA and M. Com)

a. Annual System [X]

b. Semester System [√]

c. Trimester System [X]

17. Number of Programmes with

a. Choice Based Credit System [√]

b. Inter/Multidisciplinary Approach [X]

c. Any other (specify and provide details): [X]

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes [x] No [√]

If yes,

a. Year of Introduction of the programme(s)…….(dd/mm/yyyy)
And number of batches that completed the programme [ ]

b. NCTE recognition details (if applicable)
Notification No:……. Date:……(dd/mm/yyyy)
Validity:…….

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately? Yes [ ] No [ ]

19. Does the college offer UG or PG programme in Physical Education?

Yes [X] No [√]

If yes,

a. Year of Introduction of the programme(s)…….(dd/mm/yyyy)
And number of batches that completed the programme [ ]

b. NCTE recognition details (if applicable)
Notification No:……. Date:……(dd/mm/yyyy)
Validity:…….

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately? [ ] [ ]

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non teaching staff		Technical staff	
	Professor		Asso Prof		Assistant Professor					
	M	F	M	F	M	F	M	F	M	F
Sanctioned by the State Government	**01**		**---**	**---**	**47**		**34**		**13**	
Recruited	**01**	**---**	**---**	**---**	**22**	**17**	**12**	**12**	**06**	**01**
Yet to recruit	**NIL**		**---**	**---**	**08**		**10**		**06**	

***M-Male*F-Female**

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	---	---	---	---	---	---	----
Ph.D.	**01**	---	---	---	**12**	**10**	---
M.Phil.	---	---	---	---	**---**	**02**	---
PG	---	---	---	---	**07**	**02**	---
Temporary teachers							
Ph.D.	---	---	---	---	**02**	**03**	---
M.Phil.	---	---	---	---	**---**	**---**	---
PG	---	---	---	---	**---**	**01**	---
Part-time teachers							
Ph.D.	---	---	---	---	---	---	---
M.Phil.	---	---	---	---	---	---	---
PG	---	---	---	---	---	---	---

22. Number of Visiting Faculty/ Guest Faculty engaged with the College: NIL

23. Furnish the number of the students admitted to the college during the last four academic years:

Categories	Year1 2012-13		Year2 2013-14		Year3 2014-15		Year4 2015-16	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
SC	65	63	78	83	90	68	94	56
ST	120	58	115	69	118	66	101	45
OBC	269	112	289	167	351	169	362	159
General	255	182	306	276	434	330	383	311
Others	----	----	----	----	11	09	11	12

24. Details on students' enrollment in the college during the current academic year:

Type of students	UG	PG	M.Phil.	Ph.D.	Total
Students from the same State where the college is located	1356	---	---	---	1356
Students from other states of	---	---	---	---	---
NRI students	---	---	---	---	---
Foreign students	---	---	---	---	---
Total	---	---	---	---	---

25. Dropout rate in UG and PG (average of the last two batches)

UG 17.53% PG ----

26. Unit Cost of Education

(Unit cost=total annual recurring expenditure (actual) divided by the total number of students enrolled)

a. Including the salary component **Rs. 25948.26**

b. Excluding the salary component **Rs. 2067.09**

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes**.** [X] No [√]

a. ***Is it a registered centre for offering distance education programmes of another University***

Yes**.** [ ] No [ ]

b. ***Name of the University which has granted such registration***

[ ]

c. Number of programmes offered

d. Programmes carry the recognition of the Distance Education Council.

Yes**.** [ ] No [ ]

28. Provide Teacher-student ratio for each of the programme/course offered: 1:35

29. Is the college applying for

Accreditation: Cycle 1 [X] Cycle 2 [√] Cycle 3 [X] Cycle 4 [X]

Re-Assessment [X]

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation**)**

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-accreditation only)

Cycle 1: **28/03/2010** Accreditation Outcome/Result- **2.53- 'B'Grade**

* For Accreditation certificate, kindly refer annexure. -1 in appendix section.

31. Number of working days during last academic year.

212

32. Number of teaching days during the last academic year.

(Teaching days means days on which lectures were engaged excluding the examination days)

180

33. Date of establishment of Internal Quality Assurance Cell (IQAC)……..25/01/2011

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

AQAR (i)2010-11	28/02/2017
AQAR (ii)2011-12	28/02/2017
AQAR (iii)2012-13	28/02/2017
AQAR (iv)2013-14	28/02/2017
AQAR (iii)2014-15	28/02/2017
AQAR (iv)2015-16	28/02/2017

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

CRITERION-I

CURRICULAR ASPECTS

CRITERION- I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institutions and describe how these are communicated to the students, teachers, staff and other stakeholders.

MOTO: College has set its **motto** as *JnanadVindamGauravam* (Knowledge gains you pride) which is mentioned in the college emblem.

VISION: Government Science College, Gandhinagar, will become the State Resource Centre in Science Education with national recognition and will provide flawless access to sustainable and learner-centric science education for excellence and service.

MISSION:

- To inculcate human values and generate environmental awareness in the society.
- To raise necessary infrastructure and provide essential facilities for the enhancement of science education among students.
- To work in harmony with state and central governments and other federal agencies for the development of higher education.
- To develop the world-class manpower through the quality education in order to meet the challenges of the highly competitive global market.
- To impart quality education with use of ICT and enable the students to overall personality.
- To provide necessary technical, research and professional skills.
- To provide guidance for self-empowerment
- To develop the healthy network in educational institutes towards Excellency.
- To contribute to create a better society through social services.
- To make the students employable.
- To create faith in self through practical responsibility.

The Vision and Mission statements of the College are displayed at various places of the College like Principal's chamber, administrative office, Library, Staff Common Rooms, main entrance as well as on the Website of the College so that all the stakeholders may notice them.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

- Our college is affiliated to Gujarat University and based on the university academic calendar, institute plans its own academic calendar. Time table committee prepares general time table with concurrence with head of the institution and head of the departments. Once the time table is prepared it is circulated to various departments by the head of the institution. The implementation of the time table and the completion of syllabus are regularly monitored by the head of the institution. The extra- curricular activities are

planned in such a way that the teaching is not affected and the syllabus is completed within stipulated time.

- For the deployment, the action plan of the institute is based on optimal completion of the syllabus within in the stipulated time in each class. Students are evaluated from 30 marks based on internal examination. Choice Based Credit system is introduced since 2011. Classes are conducted on regular basis and is monitored by the head of the institution regularly.

1.1.3 What type of support (procedural and practical) do the teachers receive (from university and/or institution) for effectively translating the curriculum delivery and improving teaching practices?

- Teachers receive support form institution in following ways for effectively translating curriculum and improving teaching practices.
- Teachers can teach in the class rooms using black board, multimedia projector, overhead projector, charts, models etc.
- Laboratories equipped with modern instruments, chemicals, glass wares and having facility of electric, water and gas supply are available for hands on practicals for scientific experiments.
- As the campus has Wi-Fi facilities the teacher can use it to upgrade their knowledge.
- Relevant text books and reference books are issued from library to teachers. In addition to this, the college library is equipped with SOUL software and N-LIST programme which provide access to e-books and e-journals that teachers can use for knowledge enhancement and as tools of teaching.
- Faculty members are encouraged to participate in faculty development programmes, orientation course, refresher course, seminars, conferences, workshops and short term courses etc.
- During classroom teaching, there is interaction between students and teachers by encouraging them to ask questions in order to create the scientific temper which ultimately results in vision for research and innovation.
- To explain the fundamental principles, use of ICT and animation with illustrative examples is practised for effective knowledge transfer.

1.1.4 Specify the initiative taken up or contribution made by the institution for effective curriculum delivery and transactions on the curriculum provided by the affiliating university or other statutory agency.

At the commencement of the term an orientation programme for the students is organized in which the students are made acquaint with CBCS system. They are made familiarize with syllabus, examination pattern, marking schemes and various other co-curricular activities which are to be carried out during the year. Teaching learning process is more interactive and effective by giving assignments and encouraging them for presentations.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?

- For effective operationalization of the curriculum, institute arranges lectures by inviting subject experts, hands-on workshop, organizes field/industrial visit, study tours and visit to higher learning institutes.

- Recently 22 students have appeared in online examination conducted by Infosys out of which 03 students have successfully qualified for further process of placement.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the university? (Number of staff members/departments represented on the Board of Studies, student feedback, teacher's feedback, stakeholder feedback provided, specify specific suggestions etc.)

Our institute is affiliated to Gujarat University. Therefore, the designing of the curriculum is done by the members of boards of studies of the university. Two staff members- Head of Mathematics and Head of Microbiology department are the members of board of studies. The feedback on curriculum is conveyed to university by these two members of board of studies. Stakeholder can send their feedback offline as well as online through college website. The feedbacks are further analysed and discussed between the head of the institution and IQAC cell and the outcomes are communicated to university.

1.1.7 Does the institution develop curriculum for any of the course offered (other than those under the purview of the affiliating university) by it? If yes, give details on the process.

Our institution does not develop curriculum for any of the courses other than those offered by Gujarat University.

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

- The objectives of the curriculum are achieved with the regular feedback from students, assignments and seminars/presentation made by the students. The head of the departments ensures that the syllabus is completed within the time by the faculty members.
- Alumni association meets regularly with the present students and they share their knowledge and help them for the job placement.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/skill development courses etc., offered by the institution.

Our institution does not offer any certificate/diploma/skill development courses.

1.2.2 Does the institution offer programme that facilitate twinning/dual programme? If yes, give details.

Our institution does not offer programmes that facilitate twinning/dual degree.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

A. Range of Core / Elective options offered by the University and those opted by the college

B. Choice Based Credit System and range of subject options

C. Courses offered in modular form

D. Credit transfer and accumulation facility

E. Lateral and vertical mobility within and across programmes and courses

F. Enrichment courses

Followings are details on institutional provisions with reference to academic flexibility

A. Range of Foundation/ Core / Elective options offered by the University and those opted by the college:

- General English is offered as compulsory foundation course for UG level science students by university.
- The core subjects offered by the institute are Botany, Chemistry, Physics, Mathematics and Microbiology.
- Elective subjects offered by institute are Biodiversity, Environmental Science, Public Health, and Forensic Science up to semester-IV respectively whereas in Sem-V and in Sem-VI the elective subjects are offered department wise from the list of subjects offered by university.

SEM-I & II	**SEM-III & IV**	**SEM-V & VI**
Students passed 12th Science with Mathematics: Physics-Mathematics-Chemistry	Physics-Mathematics Mathematics-Physics Physics-Chemistry Chemistry-Physics	Physics Mathematics Chemistry
Students passed 12th Science with Biology: Physics- Chemistry - Biology	Chemistry-Botany Microbiology-Zoology Microbiology-Botany Microbiology-Chemistry Botany-Zoology	Chemistry Microbiology Botany

B. Choice Based Credit System (CBCS) and range of subject options

- Gujarat University has adopted CBCS system from the year 2011-2012. The students are offered wide range of options for the foundation, core and elective subjects specified in the curriculum by Gujarat University.
- Students are free to choose subject of their interest and caliber [As discussed in the previous section 1.2.3 (A)] and earn 150 credits to qualify for getting B. Sc. Degree. Following table shows the semester wise credit structure of B. Sc. Programme offered by the college.

Type of Course	Semester Wise Credits					
	SEM-I	**SEM-II**	**SEM-III**	**SEM-IV**	**SEM-V**	**SEM-VI**
Foundation Course	02	02	02	02	02	02
Core Theory Course	12	12	16	16	16	16
Core Practical Course	09	09	05	05	05	05
Elective Course	02	02	02	02	02	02
Credits / Semester	25	25	25	25	25	25
Total Credits	**25 x 06 = 150**					

C. Courses offered in modular form

Our college does not offer courses in modular form.

D. Credit transfer and accumulation facility

- When any student transfer his/her admission from our college to any other college affiliated to Gujarat University the credit earned by the students up to last semester in our college can be transferred.
- Every student of this college can avail the facility of credit accumulation from Semester-I to Semester-VI. Total 150 credits can be earned by students at the end of Semester-VI.

E. Lateral and vertical mobility within and across programmes and courses

Lateral mobility within B. Sc. programme is possible for the students who want to change their subject groups while entering Semester-III. For example, student of S. Y. B. Sc. Group A (Mathematics) can move from subject group Physics-Mathematics (PM) to Mathematics-Physics (MP) and vice versa. Similarly, student can move from subject group Physics-Chemistry (PC) to Chemistry-Physics (CP) and vice versa.

However, owing to the restriction of Gujarat University, vertical mobility of the student is not possible.

F. Enrichment courses

No enrichment courses are offered by the institution

1.2.4 Does the institution offers self-financed programmes? If yes list them and indicate how they are differ from other programmes with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Our institution does not offer any self-financed programmes.

1.2.5 Does the college provide additional skill oriented programmes relevant to regional and global employment markets? If yes provide details of such programme and the beneficiaries.

Our institution does not provide additional skill oriented programmes relevant to regional and global employment market.

1.2.6 Does the university provide the flexibility of combining the conventional face-to-face and distance mode of education for the student to choose the courses/combination of their choice? If yes, how does the institution take advantage of such provision for the benefit of students?

Gujarat University does not provide flexibility of combining face-to-face and distance mode of education for students to choose the courses/combination of their choice.

1.3 Curriculum Enrichment

1.3.1 Describe efforts made by the institution to supplement the university's curriculum to ensure that the academic programmes and institution's goals and objectives are integrated?

In addition to theory and practical work, curricular activities like study tour programs, expert lectures on health and hygiene, programmes on environmental issues etc. are arranged which ensure that the academic programmes and Institution's goals and objectives are satisfied.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

Curricular activities like study tour, industrial visit, research institute and also expert lectures based on skill development are arranged by the institute. We also interact with industrial people, employer, alumni and past faculty members to improve the knowledge and skill of the students. Teaching is done by using LCD projectors and digital podium in a way leading to familiarize with the latest technology

1.3.3 Enumerate the efforts made by the institution to integrate the cross-cutting issues such as Gender, Climate change, Environmental Education, Human rights, ICT etc., in to the curriculum?

A. Gender

Our institute has Collegiate Woman's Development Cell (CWDC) under which various activities like visit to EDI for female students, drawing competition on "Save Girl Child", training for female students on self-defence technique by a trained "Martial Art" coach. RUSA has provided equity grants for this purpose.

B. Climate Change

Almost every year college organizes a tree plantation programme, cleanliness day, celebration of Ozone day and a seminar on Biodiversity.

C. Environmental Education

- College has established a nature club which educates the students on environmental issues by arranging expert lectures and field visits.
- In order to keep the campus clean dustbins are kept at various places, plastic is prohibited on the campus, students are educated to categorize the waste into dry, wet, solid and hazardous waste.
- College offers Biodiversity and Environmental Science subject as an elective paper to the students in semester-I and semester-II respectively.

D. Human Rights

Equal opportunities are given to both staff and faculty members by our college. The admissions are allotted to students as per the stipulated norms of category of Government of Gujarat.

E. ICT

To facilitate learning through ICT, the departments and library are equipped with LCD projectors and computers. College also has Wi-Fi facility. Final year students are encouraged to make presentation using power point presentation and are thus made accustomed with ICT learning.

1.3.4 What are the various value added courses/enrichment programmes offered to ensure holistic development of students?

Officially college do not offer any value-added courses or enrichment programmes to ensure holistic development of students. Albeit college celebrates Swami Vivekananda Birth Anniversary, Independence Day and Republic Day, Teacher's Day, Blood donation camp in collaboration with Red Cross society etc. which enhances moral and ethical values in students. English Speaking Course Modules (through DELL), General Knowledge Tests, Preparations for Competitive Examination etc. are practiced in college that incorporates life skills and make students more employable as well as provide them better carrier options. On the other hand, cleanliness campaign, visit to old age home and canteen day celebration are regular activity of the college. The amount collected by celebrating canteen day is disbursed in the form of study kit to the needy students of government schools. It gives an opportunity to the students to interact with the community by inculcating human values in them. College has also NSS and NCC unit which inculcate leadership skills, social responsibilities and patriotic feelings amongst the students.

1.3.5 Citing a few examples enumerate on the extent of the use of the feedback from stakeholders in enriching the curriculum?

Our institute is affiliated to Gujarat University. Two staff members- Head of Mathematics and Head of Microbiology department are the members of board of studies. The feedback taken from students and faculties regarding curriculum are discussed and are conveyed to university by these two members of board of studies.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The college has established Internal Quality Assurance Cell (IQAC) as per the guidelines of UGC and NAAC. The suggestions made by the NAAC peer team during the previous visit are discussed and best efforts are made for implementation by Head of the institution, Head of the departments and the members of IQAC.

1.4 Feedback System

1.4.1 ***What are the contributions of the institution in the design and development of the curriculum prepared by the university?***

Title, content, credits, and references of the foundation, core and elective courses are suggested by our teaching staff members who are members of board of study. In addition to this, in our institution we have student from rural and urban localities, keeping in mind their background we suggest level of language, mode of writing answers in theory and practical examination, and incorporation of basic and applied practical exercises in the syllabus.

1.4.2 ***Is there a formal mechanism to obtain feedback from students and stakeholders on curriculum? If yes, how is it communicated to the university and made use internally for curriculum enrichment and introducing changes / new programmes?***

Our institution has a formal mechanism to obtain feedback from students on Curriculum. By analyzing these feedbacks; suggestion and recommendations are listed which are forwarded to Gujarat University by our teaching staff members who are members of board of study in their specialized subject. Student's feedbacks and responses on curriculum are used to enrich curriculum by incorporating more examples, case studies, field studies, seminars, question bank, diagrams, online references, e-books, videos, and animations. Stakeholder can send their feedback offline as well as online through college website.

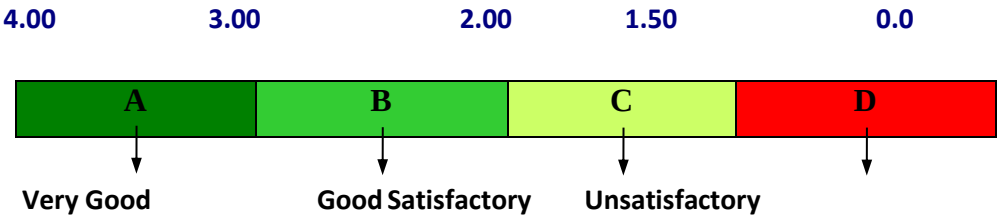
Government Science College, Sector-15, Gandhinagar

Feedback on Course

Programme: B. Sc. Year:

Dear Student,

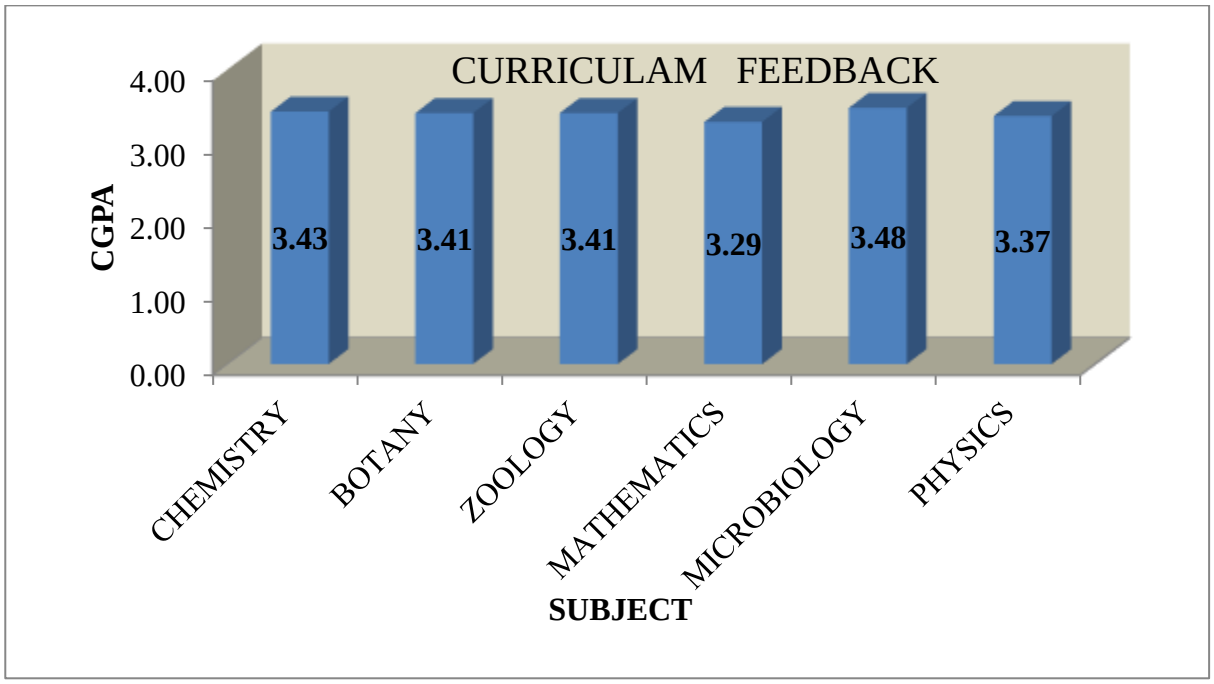
You are required to rate the courses on the following attributes using the 4 - point scale shown. The format given is for one course.



Course-I

Parameters	A Very Good	B Good	C Satisfactory	D Unsatisfactory
1. Depth of the course content including project work if any 2. Extent of coverage of course 3. Applicability/relevance to real life situations 4. Learning value (in terms of knowledge, concepts, manual skills, analytical abilities and broadening perspectives) 5. Clarity and relevance of textual reading material 6. Relevance of additional source material (Library) 7. Extent of effort required by students 8. Overall rating				

Results of feedback given by students on curriculum are as below:



1.4.3. ***How many new courses/programmes were introduced by the institution during the last four years?***

No new programmes/courses were introduced by the institution during the last four years

CRITERION- II

TEACHING-LEARNING AND EVALUATION

Criterion II: Teaching – Learning and Evaluation

2.1 Student Enrollment Profile.

2.1.1 How does the institution ensure publicity and transparency in the admission process?

Mode & Process of Admission:

- University level centralized online admission process conducted by Gujarat University Admission Committee (GUAC) is followed by the college for the first-year B.Sc. from the academic year 2016-17. (Previously, online admission process was also followed in the academic year 2014-15, whereas in the rest of the academic year's offline admission process was carried out by the college itself.)
- The entire admission process is carried out by Gujarat University through website http://www.gujaratuniversity.ac.in/web/custom/admissions
- GUAC supervise, monitor and control the entire process of admission and follows the rules and regulations and guidelines of Gujarat University as per existing Government policies.
- College level admission committee carry outs the counseling of the applicants by explaining the scope of the course. Moreover, local college level admission committee solves all the inquiries & queries of students / parents regarding the online admission process.

Publicity and Transparency:

- For the sake of publicity of online B.Sc. admission process, the university uploads the details of the entire admission process in the university website.
- Admission notification / circulars are also displayed on the college notice board.
- Information Booklet comprising of all the relevant information and instructions is placed on University as well as college website.
- Gujarat University publishes advertisement through Electronic and Print Media.
- To spread awareness regarding rules and regulations, admission process, eligibility criteria, online registration, e-form, admission process, list of available colleges with the courses offered, available seats, payment of fees, preparation of merit list, filing grievances etc. amongst the admission aspirants to first year B.Sc. program in Gujarat University, the Gujarat University Admission Committee (GUAC) arranges awareness seminars at different colleges of Gujarat University.
- Application forms (e-forms) are made available on-line and can be submitted on-line only. Merit lists are prepared by GUAC on the basis of the marks in H.S.C. or 12th standard (Science) for all the categories as per the rules & regulations. Admissions are strictly made on the basis of merit and choices regarding the subjects and colleges filled by the applicant.

Admission Process for Subsequent Years:

- College level different admission committees are formed for the subsequent years, i.e., for S.Y. & T.Y. B.Sc. admission process.
- Offline admission process is followed by each of the admission committee.
- Each admission committee takes care of all the rules - regulations and guidelines of the college in accordance of Gujarat University and Government policies.

- As college follows the CBCS, admissions in the respective groups are given as per students' choices of subjects.

2.1.2 Explain in detail the criteria adopted and process of admission. (Ex. (i) merit, (ii) common admission test conducted by state agencies and national agencies, (iii) combination of merit and entrance test or merit, entrance test and interview, (iv) any other) to various programmes of the institution.

Admission on Merit:

- Our Institute admits students in First Year B. Sc. course on the basis of merit list generated online by GUAC in all the categories as per the rules & regulations of University and Government policies.

Merit:

- Merit is prepared on the basis of percentage of marks obtained in theory subjects (Physics-Chemistry-Mathematics for A Group and Physics-Chemistry-Biology for B Group) by the candidate in his/her qualifying examination Higher Secondary School Certificate (HSC) 10+2 pattern Board examination.

Merit Number (Rank):

- Merit number (rank) is given on the basis of percentage of marks as mentioned above. The criteria for deciding merit order in case of candidates having equal merit marks is based on the following descending sequence, namely-
    - Aggregate marks obtained in qualifying examination
    - Practical Marks
    - English subject marks in qualifying examination
    - Aggregate marks of SSC Examination or equivalent examination
    - Date of Birth (Age)
    - Merit list is displayed both on the university website and the college notice board.

Distribution of Seats among Candidates:

- 70% seats shall be reserved for candidates who have passed their qualifying examination from the schools of Ahmedabad & Gandhinagar Districts
- 30% seats shall be reserved for candidates who have passed their qualifying examination from the schools located outside Ahmedabad & Gandhinagar District.

Common Admission Test:

- There is no as such provision of common admission test as far as B.Sc. admissions are concerned.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/ district?

As the online admission process is purely centralized, the GUAC takes care of all the things like preparing merit, merit list depicting merit rank, category wise cutoff rank of each and every affiliated colleges etc. Merit list is prepared by the GUAC and the numbers of candidates are allotted to a college looking to the strength (intake capacity) of the divisions sanctioned by the university.

Maximum & Minimum Percentage of Marks at Entry Level:

- Usually, it is observed that in the first merit list, maximum percentage of marks at entry level may cross 70 % marks. But most of the students with higher merits admitted in F.Y. B.Sc. semester 1 after the first round of admission leave the college as and when they got admissions in Engineering and Medical fields. Usually, online admission process of B.Sc. starts first, whereas online admission process including shuffling and re-shuffling in Engineering and Medical fields take too much time. So, as per parents' wish most of the students with higher merit secure their admission in B.Sc., but after getting admission in engineering / medical colleges of their wish, they leave the basic science college. This seems as higher dropout rate at entry level, but this is not the true dropout rate.
- On the other end, being a Government college, as per the guideline of inclusion of all in higher education, minimum percentage of marks is obviously minimum required passing marks. Many a times we have to give admissions to the students, who have passed their qualifying examination, i.e., Higher Secondary School Certificate (HSC) 10+2 pattern examination in second or third attempt.
- After the declaration of HSC (Science) results, HSC Board conducts special exams for the students, who failed to secure passing marks in one subject. Such students, who passed their qualifying examination in second attempt, usually prefer to carry out higher studies in basic sciences and take admission in the B.Sc. programme in Government science colleges.

Cutoff Rank in Round 2 of B.Sc. Semester 1 Online Admission: A Comparison with other colleges of the affiliating university within the city / district:

- The highlighted column (i.e. GSC-GNR) of Table 2.1 shows the category wise as well as district wise cutoff rank in different subject groups offered in our college in round 2 of B.Sc. Semester 1 online Admission Process conducted by GUAC for the academic year 2016-17. (Total 3 Rounds for online admission is carried out by GUAC. But here, just for an example & comparison, cutoff rank for 2nd Round is shown in the table 2.1)
- Table 2.1 also shows a comparison with other six colleges of the affiliating university within the city and Gandhinagar district. Most of the colleges offer different subject groups.
- Remarkable difference in cutoff rank is observed not only for the different colleges within Gandhinagar district, but also for the group A (with mathematics) & group B (with biology) subjects, for different subjects' groups within the main A & B groups and also for different categories.
- Table 2.1 clearly indicates that higher merit / cutoff rank is observed in each of the subject groups offered in our college. This evidently shows that parents & students prefer to fill first choice as our college during online admission process.

Table: 2.1: Cutoff Rank in Round 2 for online B.Sc. Semester 1 Admission Process (Comparison with other colleges of the affiliating university within the city & district)

Subject Group	Districts	Category	Cutoff Rank in Round 2 for Online B.Sc. Semester 1 Admission Process (2016 – 17)						
			GSC	GRCS	SSCC	SVBISC	SLHSC	PHGMASC	CHMSSC
			GNR	GNR	GNR	Vasan	Mansa	Kalol	Ajol
BZC (Botany + Zoology + Chemistry) (CBZ for SLHSC & for CHMSSC)	A/G	General	2684	--	--	--	2875	--	8647
	A/G	General (SC)	2414	--	--	--	-	--	8746
	A/G	General (SEBC)	2624	--	--	--	2794	--	8302
	A/G	General (ST)	-	--	--	--	-	--	8209
	A/G	Open (EBC)	5733	--	--	--	8080	--	-
	A/G	SC	4273	--	--	--	3670	--	-
	A/G	SEBC	3991	--	--	--	4479	--	-
	A/G	ST	7096	--	--	--	-	--	-
	Outside	General	51279	--	--	--	51759	--	52956
	Outside	General(Open/EBC)	-	--	--	--	51737	--	53459
	Outside	General (SEBC)	51272	--	--	--	51815	--	53472
	Outside	Open (EBC)	52374	--	--	--	52413	--	53910
	Outside	SC	51416	--	--	--	54074	--	54410
	Outside	SEBC	51515	--	--	--	52576	--	54013
	Outside	ST	53741	--	--	--	55468	--	-
MBC (Micro-Biology + Botany + Chemistry)	A/G	General	2424	--	--	--	--	3004	--
	A/G	General (SC)	-	--	--	--	--	2885	--
	A/G	General(Open/EBC)	1623	--	--	--	--	-	--
	A/G	General (SEBC)	749	--	--	--	--	2626	--
	A/G	Open (EBC)	5871	--	--	--	--	5071	--
	A/G	SC	2968	--	--	--	--	3135	--
	A/G	SEBC	4643	--	--	--	--	6436	--
	A/G	ST	7509	--	--	--	--	-	--
	Outside	General	51588	--	--	--	--	51303	--
	Outside	Open (EBC)	-	--	--	--	--	53284	--
	Outside	SC	52090	--	--	--	--	-	--
	Outside	SEBC	52116	--	--	--	--	52554	--
	Outside	ST	54382	--	--	--	--	-	--
MZC (Micro-Biology + Zoology + Chemistry)	A/G	General	2183	--	--	--	--	3075	--
	A/G	General(Open/EBC)	1422	--	--	--	--	3245	--
	A/G	General (SC)	-	--	--	--	--	2650	--
	A/G	Open (EBC)	6168	--	--	--	--	3593	--
	A/G	SC	3051	--	--	--	--	3382	--
	A/G	SEBC	4743	--	--	--	--	5637	--
	A/G	ST	8761	--	--	--	--	-	--
	Outside	General	51629	--	--	--	--	52138	--
	Outside	General(Open/EBC)	51692	--	--	--	--	-	--
	Outside	General (SEBC)	51646	--	--	--	--	-	--
	Outside	Open (EBC)	51923	--	--	--	--	53253	--
	Outside	SC	53808	--	--	--	--	54850	--
	Outside	SEBC	52444	--	--	--	--	52623	--
	Outside	ST	55171	--	--	--	--	-	--
PCM (Physics + Chemistry	A/G	General	4677	8655	8801	8853	4337	5519	8846
	A/G	General (SC)	4628	8122	8536	8014	-	5468	7756
	A/G	General (SEBC)	4148	8818	8659	-	4003	-	-
	A/G	Open (EBC)	8703	-	-	-	7766	-	-
	A/G	SC	6373	-	-	-	6503	6893	-

+	A/G	SEBC	6662	-	-	-	5583	7503	-
Maths)	A/G	ST	8691	-	-	-	-	-	-
	Outside	General	52326	55788	56023	55915	52791	53337	54667
	Outside	General(Open/EBC)	51694	-	-	-	-	53235	55870
	Outside	General (SEBC)	52333	55894	56062	54827	-	52043	55193
	Outside	Open (EBC)	55162	-	-	-	53769	54331	-
	Outside	SC	56030	-	-	-	55729	-	-
	Outside	SEBC	53422	-	-	-	53484	53864	-

Meaning of the Abbreviations / signs used in table is as under -

GRCS: Girish Raval College of Science, Near Mota Chiloda, Gandhinagar
(Subjects Group offered in GRCSG in Semester: 1 are PCB, PCM, PCMI)

SSCC: Samarpan Science and Commerce College, Sector – 28, Gandhinagar
(Subjects Group offered in SSCC in Semester: 1 are PCM, PMIC)

SVBISC: Shankersinh Vaghela Bapu Institute of Science and Commerce, Vasan, Dist.Gandhinagar
(Subjects Group offered in SVBISC in Semester: 1 are PCM, PMIC)

SLHSC: Sheth L. H. Science College, Mansa
(Subjects Group offered in SLHSC in Semester: 1 are CBZ, CPM)

PHGMASC: P.H.G. Municipal Arts & Science College, Kalol, Dist. Gandhinagar
(Subjects Group offered in PHGMASC in Semester: 1 are CPM, CPZ, MiCB, MiCZ)

CHMSSC: CHM Shah Science College, Ajol, Ta.: Mansa, Dist.: Gandhinagar
(Subjects Group offered in CHMSSC in Semester: 1 are CPM, CBZ)

"--": Subject Group is not offered by that particular college

"-": Subject Group is not demanded by the applicants

A/G: For the applicants from Ahmedabad / Gandhinagar Districts

Outside: For the applicants from outside (Other Districts)

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

- Being University level centralized admission process for entry level F.Y. B.Sc. students, there is no such mechanism in the institution to review the admission process at entry level.
- But, Institute gives its inputs for the smooth conduction of F.Y. B.Sc. admission process to GUAC formed at University level as and when asked or required.
- Whereas for the subsequent years' admission process, respective admission committee comprising of a Chairperson and a faculty member from each department reviews the previous year's admission process under the guidance of Principal and undertakes changes, if necessary and follows the rules & regulations of University and Government policies.
- As per the norms of university under the CBCS semesterized system, no students are considered as failed to remain in the same semester but all are promoted to the next semester till the final 6th semester.

2.1.5 Reflecting of the strategies adopted to increase/improve access for following categories of students, enumerates on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.

A SC / ST / OBC (SEBC):

- As far as the entry level online admissions are concerned, GUAC takes care of all the norms of reservation policies of the State Government. Whereas for the subsequent year's admission local admission committees of the college adheres the norms of reservation policies.
- To fulfill the National commitment to diversity and inclusion in education, separate boys' & girls' hostel facilities are provided for all the categories like SC, ST & OBC students by the Directorate of Scheduled caste welfare and Directorate of developing caste welfare of the State Government of Gujarat in Gandhinagar. And hence students from such categories prefer to fill the choice of our institute at the time of online admission process.

Table:2.2: Category Wise Student Profile

Academic Year	Year of UG Programme (B.Sc.)	Category Wise Students Admitted								
		General		SC		ST		OBC		Total
		No	%	No	%	No	%	No	%	
2012-13	F. Y.	243	36.82	80	12.12	99	15.00	238	36.06	660
	S. Y.	111	40.51	36	13.14	49	17.88	78	28.47	274
	T. Y.	83	43.68	12	6.32	30	15.79	65	34.21	190
2013-14	F. Y.	259	45.52	67	11.78	55	9.67	188	33.04	569
	S. Y.	220	38.73	70	12.32	86	15.14	192	33.80	568
	T. Y.	103	40.23	34	13.28	43	16.80	76	29.69	256
2014-15	F. Y.	307	51.95	35	5.92	59	9.98	190	32.15	591
	S. Y.	233	47.84	55	11.29	43	8.83	156	32.03	487
	T. Y.	224	40.88	68	12.41	82	14.96	174	31.75	548
2015-16	F. Y.	238	49.07	57	11.75	44	9.07	146	30.10	485
	S. Y.	236	42.14	43	7.68	59	10.54	222	39.64	560
	T. Y.	220	47.21	50	10.73	43	9.23	153	32.83	466

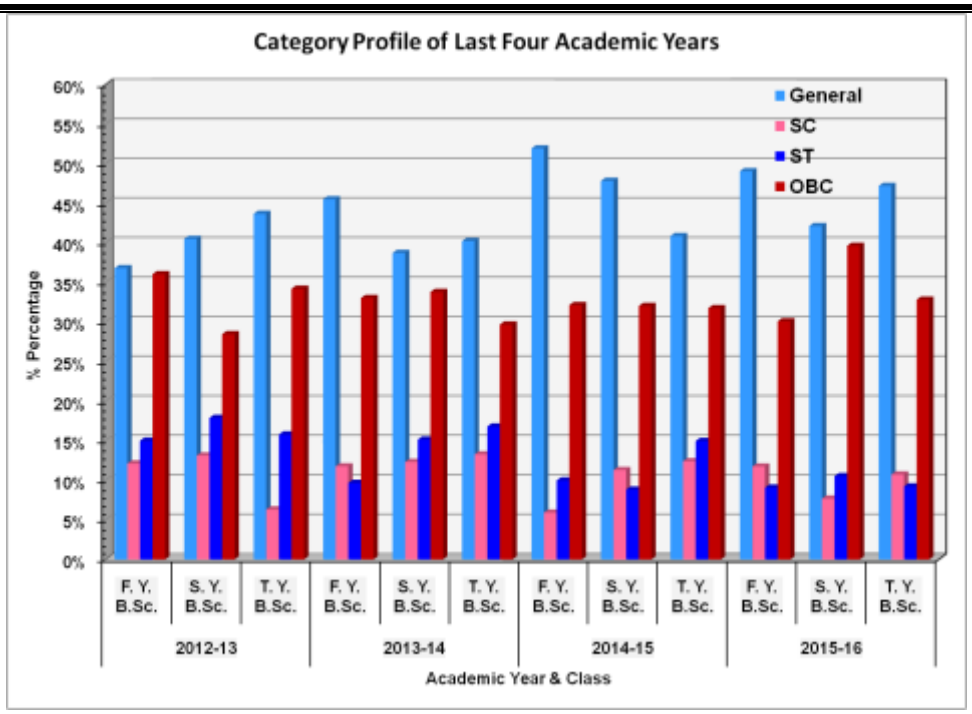


Figure: 2.1 Category Profile of Last Four Year Academic Year

- State Government norms for the Reservation Quotas of different category: 27 % OBC (SEBC), 15 % ST and 7 % SC
- Scholarships are provided as per the norms of State / Central Government.
- Table 2.2 and Figure 2.1 shows the category wise student profile of last four years in our college, which indicates that college, strictly follows reservation policy and provide opportunities of higher education to all the categories of society.

B Women:

- As per the State Government policy, to encourage girl students for higher education, tuition fees are waived off for girl students of all sections of the society in our college.
- College has established a Collegiate Women's Development Cell (CWDC), which takes care of the female student issues.
- CWDC of college also conducts women empowerment programmes.
- In order to explain the importance of women education, CWDC celebrates "*MahilaShikshan Divas*". Moreover, to encourage and motivate girl students for the self-defense "*Mahila Suraksha Divas*" is also celebrated in the college.
- CWDC also organizes "Awareness Programme for Thalassemia" for girls.
- Gandhinagar, being a capital & safest place, girl students' parents prefer to fill the choice of our institute at the time of online admission process.
- College also provides a common room for girl students.
- Figure 2.2 shows the gender wise student profile of last four years in our college.
- Table 2.3 shows the gender wise student profile of last four years in our college.

Table:2.3: Gender Wise Student Profile

Academic Year	Year of UG Programme (B.Sc.)	Gender Wise Students Admitted				
		Male		Female		Total
		Number	Percentage	Number	Percentage	
2012-13	F. Y. B.Sc.	405	61.36%	255	38.64%	660
	S. Y. B.Sc.	169	61.68%	105	38.32%	274
	T. Y. B.Sc.	135	71.05%	55	28.95%	190
2013-14	F. Y. B.Sc.	300	52.72%	269	47.28%	569
	S. Y. B.Sc.	340	59.86%	228	40.14%	568
	T. Y. B.Sc.	158	61.72%	98	38.28%	256
2014-15	F. Y. B.Sc.	412	69.71%	179	30.29%	591
	S. Y. B.Sc.	264	54.21%	223	45.79%	487
	T. Y. B.Sc.	317	57.85%	231	42.15%	548
2015-16	F. Y. B.Sc.	306	63.09%	179	36.91%	485
	S. Y. B.Sc.	386	68.93%	174	31.07%	560
	T. Y. B.Sc.	248	53.22%	218	46.78%	466

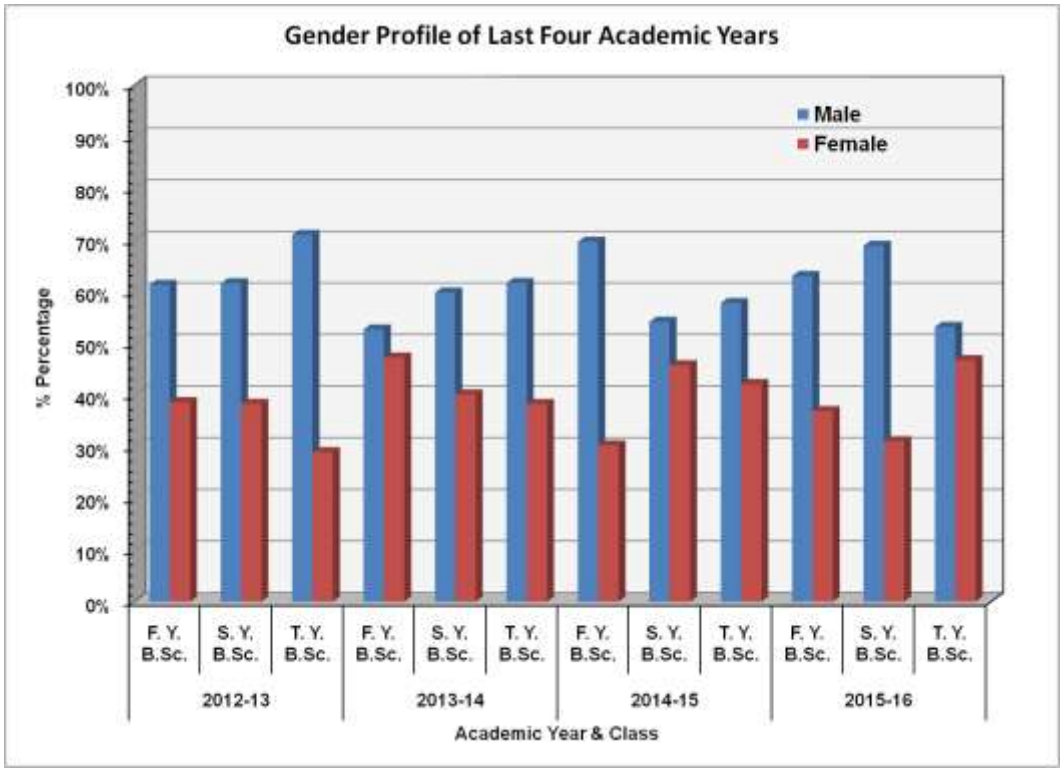


Figure: 2.2 Gender Profiles of Last Four Academic Years

C Differently abled:

- 3 % of the available seats in each category are kept reserved, in accordance with the provisions of the Persons with Disabilities (Equal Opportunities,

Protection of Rights and Full Participation) Act, 1995 (1 of 1996), for the persons with disability who can perform the academic activities in the respective program.

- College also provides facility for differently abled students like ramp.
- Special care and space is provided to such *DIVYANG* students during examinations.

D Economically weaker sections:

- Since our college is the Government College, as per the directions of State Government and Gujarat University admission & tuition fees are kept nominal & affordable to all the economically weaker sections in comparison of other grant-in-aid and self-finance colleges.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends i.e. reasons for increase/decrease and actions initiated for improvement.

- College offers UG level 3 years B.Sc. Programmes only.
- Table depicts demand ratio at the entry level of B.Sc. programme, which clearly shows the increasing trend of students towards B.Sc. programme.

Table:2.4: Demand Ratio

Academic Year	Mode of Admission for F.Y. B.Sc.	Number of applications	Intake Capacity#	Number of students admitted*	Demand Ratio$
2012 – 13	Offline	1616	520	660	3.11 : 1
2013 – 14	Offline	2731	520	569	5.25 : 1
2014 – 15	Online + Offline	2520	520	591	4.85 : 1
2015 – 16	Offline	861	520	485	1.65 : 1
2016 – 17	Online (490 Seats)	Data@ GUAC	520	550**	-
	+Offline(30 Seats)	413	30	30	13.76 : 1

[#] Intake Capacity of the college: 4 Divisions, 130 Students / Division

[*] Being a Government Science College, as per the instructions of Gujarat University, additional Students were admitted against the intake capacity of the college.

[$] Demand Ratio is calculated against the intake capacity of the college.

**Only 411 students are enrolled at GU out of 550 students admitted in B.Sc. Sem 1.

- **Reason of Decrease in Demand Ratio from the academic year 2015-16:** As per the guidelines given by Department of Education, Gandhinagar and Gujarat University, college has to keep 70% seats reserved for candidates who have passed their qualifying examination from the schools of Ahmedabad & Gandhinagar Districts and 30% seats for candidates who have passed their qualifying examination from the schools located outside Ahmedabad / Gandhinagar District. So, being a Government college, we have to follow the guidelines and hence the flow of students from other districts is restricted by the college. And as a consequence, demand ratio decreased in 2015 – 16.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently abled students and ensure adherence to government policies in this regard?

- As per Government of Gujarat and Gujarat University rules, college provides 3 %reservation for differently abled students.

- Sufficient infrastructure for such students exists in the College. The College is always very keen to make facilities available to such students on demand.
- For the physically challenged students, the College has a ramp.
- Weak-sighted students are provided a writer in the examination on their request.
- The differently-abled students are treated at par with other students as far as teaching is concerned.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

- As the college is affiliated with Gujarat University and has to follow online admission process, there is no such formal provision in the college to assess students' knowledge and skills before the admission. The merit of students in the last qualifying HSC examination is considered to be the basis of assessment of the knowledge of the students before the commencement of the programmes.
- Interaction of the teachers with the students during teaching – learning process including theory classes as well as practical sessions helps teachers to understand the level of necessary pre-required knowledge and skills of the students.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/Add-on/Enrichment courses, etc.) to enable them to cope with the programme of their choice?

In order to bridge the knowledge gap as well as skill gap of the enrolled students and to enable them to cope with the courses of their choice, the following strategies are followed and deployed by the college:

A Orientation Programme: After the completion of admission process, year wise orientation programmes for newly admitted students are conducted to provide the detail information of the B.Sc. programme, about Choice Based Credit System (CBCS), brief history of college, various departments of college and courses / subjects offered in the college, schemes and strategies for internal & external evaluations, etc.

***B Bilingual Teaching – Learning Process*:** Most of the students enrolled in the college are from rural surrounding areas of Gandhinagar and having Gujarati medium up to their 12th Class. Whereas some of the courses like Microbiology and elective courses in other subjects are in English medium. So, teachers use to give bilingual (English & Gujarati) explanations during the classroom teaching as well as practical sessions.

C Extra Lectures: Teachers take extra lectures to provide necessary pre-required fundamental knowledge to fill up the knowledge gap of the students.

***D* Brushing up of the Basic Concepts:** Brushing up of the basic concepts of the subject is an important aspects of classroom teaching-learning process to bridge the knowledge gap of students.

***E Initial Practical Sessions to Provide Basic Skills*:** Teachers take extra initial practical sessions to demonstrate the proper use of basic instruments and provide hands on experience sessions before starting the actual experiments of the course to provide necessary pre-required basic skills so that students can make proper use the instruments with confidence.

F ***Personnel Guidance:*** Slow and advanced learners are identified from the results of the first internal test, their interactions in classroom teaching and performance of experiments in the laboratory. The faculty members are very much involved in this aspect and guide them personally.

G **Digital English Language Lab (DELL):** The institution is very much aware of the students' levels of competency in language skills. Most of the students admitted to our college are from rural background and little poor in English, so DELL facility is provided to improve students' communication skill, language proficiency as well as computer knowledge.

H **Remedial Coaching:** Remedial coaching is also offered to slow learner. In case of advanced learners, the College promotes them to achieve their maximum potential by suggesting further reading about the subject and also encourage them to present working models and poster presentation in intermediate college competitions.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.

A. Gender Sensitization:

- As far as the question of gender is concerned, college provides equal opportunities to both the sexes in terms of academic guidance, curricular, co-curricular and extra-curricular activities including library facilities, sports facilities, NCC and NSS activities.
- Female faculty members are also placed in various college committees and they play significant role in each of the college activity.
- College has also established a Collegiate Women's Development Cell (CWDC), which takes care of the female student issues.
- College arranges special programmes for girls in consultation with CWDC to sensitization them towards various issues related to women like.
    - Women Empowerment Programmes
    - Self Defense Training Programmes
    - Workshop for Legal Awareness in Women
    - Counseling of female students as and when required
- As a part of Governments move "***Beti Bachao Abhiyan***" college students have prepared a play to create awareness in society on save girl child movement.
- CWDC organizes special expert lectures / talks for girl students on the various issues related to girls like malnutrition, gynecological issues, legal issues, etc.
- In the academic year 2015 – 16, female students have been given self-defense training for 10 days. In all, 30 female students had participated in this training.

B. Environment Sensitization:

- To create environment awareness amongst the students, as per the guidelines of UGC, MHRD & the Hon'ble Supreme Court of India, Gujarat University has introduced a course in "Environment Science" as an elective course under the CBCS scheme which is made compulsory for all students of semester II.
- To create environmental awareness, college conducts many programmes like celebration of special days like environment day, ozone day, etc.

Moreover, college organizes plantation programmes, college campus cleaning programmes by both students and the staff members.

- **Nature Club**: College has also established a "Nature Club", which organizes programmes in collaboration with biodiversity board like talks on environmental awareness, field trips to nearby areas in order to sensitize students towards environmental issues.
- **No Plastic Bags:** Plastic bags are prohibited in the college campus.
- **Promotion of CNG Vehicles:** Faculty members and students are encouraged to use CNG vehicles.
- **Bicycle Sharing Project GBike**: Gandhinagar Urban Development Authority (GUDA) has launched ***"Bicycle Sharing Project GBike: Trin…Trin… Green…Green…Project"*** in March 2016 in order to improve mobility and provide eco-friendly transportation within the city. Students are encouraged to take benefit of the project and use GBike to keep city clean and green. Under GBike project students can pick up bicycle from any GBike stand and drop at any GBike stand.
- **RUSA Grant:** Moreover, college is also one of the beneficiary of RUSA grant, and as per the guidelines college focuses on equity and quality.

2.2.5 How does the institution identify and respond to educational/learning needs of advanced learners?

- Advanced learners and slow learners are identified from Students' performance in the continuous comprehensive evaluation process as well as from the results of internal and external examination results.
- Personal attention is given by faculty members on both the advanced learners and slow learners.
- Advanced learners are given superior assignments for helping them in their knowledge of the subject.
- Apart from internal examination institutes also conducts general knowledge test and based on both the results institute provides the guidance and materials to the successful students in the form of CD's and also provide them the *Gujarat Rojgar Samachar* subscription free of cost for one year.
- College conducts two hours' morning classes for providing the guidance regarding competitive exams.
- The institute provides guidance and material of question papers along with solutions to those students appearing in National Graduate Physics examinations conducted by Indian Association of Physics Teachers (IAPT).
- Students are also encouraged to participate in the National Essay competition organized by Department of Atomic energy.
- Advanced students are guided and encouraged to participate in seminars and conferences organized by various institutes.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programmes duration) of the students at risk of drop out (students from the disadvantage section of the society/physically challenged/ slow learners, economically weaker sections etc. who may discontinue their studies if some short of support is not provided)?

- The college collects and analyzes the data of their academic performance by means of continuous comprehensive evaluations techniques like assignments, regular checking of their practical record books & journals, conducting quiz & viva, seminars and internal test.
- Special assignments are given to slow learners. They are asked to solve the question papers of the Gujarat University.
- There arises no question of students drop out rate in the present semester system of examination. Unsuccessful students are allowed to keep term in the next semester and continue to do so till last semester of degree course. And also, due to some personal reasons if by chance a student leaves his/her studies in between the semester then also there is a provision that he/she can continue their studies further whenever they wish to do so and can complete their degree course.
- Scholarships to socially and economically backward class students, scheduled caste students and scheduled tribe students are disbursed every year as per government rules by the college.
- However, as mentioned in section 2.1.3, usually students with higher merits admitted in F.Y. B.Sc. semester 1 after the first round of admission leave the college as and when they got admissions in Engineering and Medical fields. Usually, online admission process of B.Sc. starts first, whereas online admission process including shuffling and re-shuffling in Engineering and Medical fields take too much time. So, as per parents' wish most of the students with higher merit secure their admission in B.Sc., but after getting admission in engineering / medical colleges of their wish, they leave the basic science college. This seems as higher dropout rate at entry level, but this is not dropout rate due to short of any kind of support.

2.3 Teaching -Learning Process

2.3.1 How does the institution plan and organize the teaching-learning and evaluation schedules? (Academic calendar, teaching plan and evaluation blue print, etc.)

A Academic calendar:

- As per the guidance of principal, the IQAC cell of the college prepares academic calendar in consultation of Heads of all the Departments and chairman of different committees of college in accordance with Gujarat University's academic calendar.
- The academic calendar includes tentative schedule of all the academic activities, internal and external examinations, co-curricular activities and extra-curricular activities including sports, cultural and extension activities.
- The copy of academic calendar is issued to all Heads of departments and chairmen of various committees, so that it can be executed accordingly.
- College displays the Academic calendar on notice board and also uploads it on college website before the commencement of every academic year. It provides the plan of action for the upcoming academic year to teachers, students and parents. Table 2.5 shows the academic calendar of the institution for the current academic year 2016-17.

Table:2.5: Academic Calendar 2016-17

19th May, 2016	Commencement of Online B. Sc. Semester - I Admission Process
6th June, 2016	Declaration of Final Merit List of B.Sc. Semester – I
13 – 15 June, 2016	B.Sc. Sem. - I Admission Round:1: Online Filling of Choices
15th June, 2016	Commencement of 1st Term of Academic Year 2016-17
15 – 21 June, 2016	Yoga Week: Training Programme on Yoga
16 – 19 June, 2016	B.Sc. Sem. - III &V Offline Local Admission Process
20th June, 2016	Commencement of Academic Work of B.Sc. Sem. – III & V
21st June, 2016	Celebration of International Yoga Day
25 – 26 July, 2016	B.Sc. Sem. - I Admission Round:2: Online alteration of choices
1 – 2, August, 2016	B.Sc. Sem. - I: Deposition of Tuition Fees in the Bank and Reporting with original documents/Certificates/ testimonials at college
3rd August, 2016	Orientation Programme for B.Sc. Semester – I Students, Commencement of Academic Work of B.Sc. Semester – I
14th August, 2016	Tree plantation day
15th August, 2016	Independence Day celebration
4th week of August, 2016	Inter college competition for Gandhinagar district under *Saptadhara*& formation of SRC
5th September, 2016	Teacher's day (Holiday)
15-22th Sept., 2016	*Saptadhara* Extra-Curricular Activities, NSS activities
4th Week of Sept, 2016	Practical Exam: B.Sc. Sem. – III & V
1st Week of Oct., 2016	Gujarat University Exam Forms: B.Sc. Sem. – I, III & V
4th October, 2016	Celebration of *Navratri* Festival
2nd& 3rdWeek Oct., 2016	Theory Internal Exams: B.Sc. Sem. – III & V
18th October, 2016	Stage show on Physics Experiments: IAPT Pre-convention Activity
3rd Week of Oct., 2016	Declaration of Internal Exam Results: B.Sc. Sem. – III & V
4rd Week October, 2016	University Exam (Tentative)
28th Oct. – 17th Nov., 2016	Diwali Vacation
30th October, 2016	NSS camp
18th November, 2016	Commencement of 2nd Term of Academic Year 2016-17
18th Nov – 11th Dec., 2016	University Exam B.Sc. Sem. – III & V Continues (Tentative), Internal Exams of B.Sc. Sem. – I
12th December, 2016	Commencement of Academic Work of B.Sc. Sem. – IV & VI
12 – 14 December, 2016	*Snehmilan* and Orientation Programme for Sem.– IV & VI Students

3rd Week of December, 2016	University Exams: B.Sc. Sem. – I Declaration of Internal Exam Results: B.Sc. Sem. – I
1st Week January, 2017	Days Celebration
15th January, 2017	Alumni Meeting: Get-together of Present & Past Students
22nd January, 2017	National Graduate Physics Examination – 2017
26th January, 2017	Republic Day Celebration
Last Week of Jan.,2017	Sports Week: Interclass Tournaments / Competitions
3rd week of Feb., 2017	Annual Function Celebration
4th Week of Feb., 2017	Gujarat University Exam Forms: B.Sc. Sem. – II, IV, VI
28th Feb., 2017	Celebration of National Science Day
1st& 2nd Week of Mar., 2017	B.Sc. Sem. –II, IV & VI Internal Exams: Theory & Practical
2nd Week of March, 2017	State Level Seminar
1st Week of April, 2017	Declaration of Internal Exam Results: B.Sc. Sem. – II, IV, VI
10th April, 2017	Commencement of University Exam: B.Sc. Semester - II, IV & VI
26th April, 2017	Last Working Day of 2nd Term of Academic Year 2016-17
27th April–14th June, 2017	Summer Vacation

B. Teaching Plan:

- A common framework of teaching plan for all the subjects is prepared by the IQAC cell of the College, which includes coursework of the subject, period required for its completion and schedule for practical work.
- Each faculty member formulates his / her own semester wise teaching plans as per the allotted course / subjects / papers and lectures in accordance with the college calendar. Each faculty member submits prepared teaching plans to respective Head of Department.
- Each Head of the Department looks after the progress in the teaching – learning in each of the course work as per the submitted teaching plans.
- Departmental academic plan is prepared by the head of the respective departments under the supervision of head of the institution.

C. Blue Print of Evaluation:

- The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade points.
- The evaluation of the performance of a student in each course comprises of two main components: (i) Internal Evaluation, (ii) External Evaluation. Semester, course & paper wise internal - external evaluation blueprint is shown in Table 2.6.

Table:2.6: Semester, Course & Paper wise Internal - External Evaluation Blueprint

First Year : B.Sc. Semester I & II										
B.Sc.	Type of Evaluation	Weightage of Marks in the Courses								
		Theory			Practical					
		CC-1	CC-2	CC-3	CC-1	CC-2	CC-3	FC	Total Mark	Grand Total
Semester I	Paper No	P 101	P 101	P 101	P 102	P 102	P 102	FC 101		
	External	70	70	70	70	70	70	70	490	700
	Internal	30	30	30	30	30	30	30	210	
Semester II	Paper No	P 103	P 103	P 103	P 104	P 104	P 104	FC 102		
	External	70	70	70	70	70	70	70	490	700
	Internal	30	30	30	30	30	30	30	210	
Second Year : B.Sc. Semester III & IV										
	T / P	Theory				Practical				
	Course	CC - 1		CC - 2		CC-1	CC-2	FC	Total Mark	Grand Total
Semester III	Paper No.	P 201	P 202	P 201	P 202	P 203	P 203	FC 201		
	External	70	70	70	70	70	70	70	490	700
	Internal	30	30	30	30	30	30	30	210	
Semester IV	Paper No.	P 204	P 205	P 204	P 205	P 206	P 206	FC 202		
	External	70	70	70	70	70	70	70	490	700
	Internal	30	30	30	30	30	30	30	210	
Third Year : B.Sc. Semester V & VI										
	T / H	Theory					Pract			
	Course	CC - 1				SEC	CC 1	FC	Total Mark	Grand Total
Semester V	Paper No.	P 301	P 302	P 303	P 304	P 305	P 306	FC 301		
	External	70	70	70	70	70	140	70	560	800
	Internal	30	30	30	30	30	60	30	240	
Semester VI	Paper No.	P 307	P 308	P 309	P 310	P 311	P 312	FC 302		
	External	70	70	70	70	70	140	70	560	800
	Internal	30	30	30	30	30	60	30	240	

- **Internal Evaluation:** Internal evaluation for each course is carried out by a continuous internal assessment (CIA) by the concerned course teachers as well as by an end semester internal examination. The components for the continuous internal assessment and their weightage in terms of marks are as shown in table 2.6. College conducts internal examinations at the end of each semester. College also organize an additional test (re-test) who fails to appear in the examination due to genuine reasons like students who miss the internal test due to their participation in University sports or cultural programmes, NCC and NSS camps.
- The Internal Test of each paper is of 30 marks. The pattern, blue print and paper style of the test paper is same as that of in university exams. The question paper comprises of descriptive and short answer questions.
- The schedule of the Internal Examinations is given to the students and is also displayed on the college notice board well in advance.
- **External Evaluation:** Gujarat University conducts the semester end external examinations. The weightage of external examination is 70 Marks for each paper. Details of external examination are as shown in table 2.7.

Table:2.7: Theory & Practical Evaluation Strategy

Mode of Evaluation	Evaluation Carried out By	Evaluation Strategy		Total Weightage of Each Paper	Required Minimum Passing Marks
For B.Sc. Semester : I to VI : (Internal Theory Evaluation)					
Internal Theory Evaluation	College	Components for Continuous Internal Assessment in Each Theory Paper		30 Marks	11 Marks
		Attendance	5 Marks		
		Assignments	5 Marks		
		Quiz / Viva / Seminar	5 Marks		
		Internal Theory Examination (30 Marks Written Test)	15 Marks		
For B.Sc. Semester : I to VI : (External Theory Evaluation)					
External Theory Evaluation	Gujarat University	External Theory Examination (5 Questions, 14 Marks Each)		70 Marks	25 Marks
		Question : 1 : Unit - I	14 Marks		
		Question : 2 : Unit - II	14 Marks		
		Question : 3 : Unit - III	14 Marks		
		Question : 4 : Unit - IV	14 Marks		
		Question : 5 : Unit – I to IV	14 Marks		
Total Internal + External Marks of Theory Papers				100 Marks	36 Marks
For B.Sc. Semester : I to IV : (Internal Practical Evaluation)					
Internal Practical Evaluation	College	Components for Continuous Internal Assessment in Each Practical Paper B.Sc. Semester : I to IV		30 Marks	11 Marks
		Attendance	5 Marks		
		Record Book & Journal	5 Marks		
		Viva	5 Marks		
		Internal Examination	15 Marks		
For B.Sc. Semester : I to IV : (External Practical Evaluation)					
External Practical Evaluation	College	External Practical Examination Sem I & II : 2 Practicals : 35 Marks Each Sem III & IV : 3 Practicals : 23, 23 & 24 Marks		70 Marks	25 Marks
Total Internal + External Marks of Practical Paper				100 Marks	36 Marks
For B.Sc. Semester : V to VI : (Internal Practical Evaluation)					
Internal Evaluation	College	Components for Continuous Internal Assessment in Each Practical Paper B.Sc. Semester : V to VI			
		Attendance	10 Marks	60 Marks	22 Marks
		Record Book & Journal	10 Marks		
		Viva	10 Marks		
		Internal Examination	30 Marks		
For B.Sc. Semester : V to VI : (External Practical Evaluation)					
External Evaluation	University	External Practical Examination Sem V : 4 Practicals : 35 Marks each Sem VI : 4 Practicals : 35 Marks each		140 Marks	50 Marks

Table : 2.8 : Theory & Practical Evaluation Strategy

Mode of Evaluation	Evaluation Carried out By	Evaluation Strategy		Total Weightage of Each Paper	Required Minimum Passing Marks
For B.Sc. Semester : I to VI : (Internal Theory Evaluation)					
Internal Theory Evaluation	College	Components for Continuous Internal Assessment in Each Theory Paper		30 Marks	11 Marks
		Attendance	5 Marks		
		Assignments	5 Marks		
		Quiz / Viva / Seminar	5 Marks		
		Internal Theory Examination (30 Marks Written Test)	15 Marks		
For B.Sc. Semester : I to VI : (External Theory Evaluation)					
External Theory Evaluation	Gujarat University	External Theory Examination (5 Questions, 14 Marks Each)		70 Marks	25 Marks
		Question : 1 : Unit - I	14 Marks		
		Question : 2 : Unit - II	14 Marks		
		Question : 3 : Unit - III	14 Marks		
		Question : 4 : Unit - IV	14 Marks		
		Question : 5 : Unit – I to IV	14 Marks		
Total Internal + External Marks of Theory Papers				100 Marks	36 Marks
For B.Sc. Semester : I to IV : (Internal Practical Evaluation)					
Internal Practical Evaluation	College	Components for Continuous Internal Assessment in Each Practical Paper B.Sc. Semester : I to IV		30 Marks	11 Marks
		Attendance	5 Marks		
		Record Book & Journal	5 Marks		
		Viva	5 Marks		
		Internal Examination	15 Marks		
For B.Sc. Semester : I to IV : (External Practical Evaluation)					
External Practical Evaluation	College	External Practical Examination Sem I & II : 2 Practicals : 35 Marks Each Sem III & IV : 3 Practicals : 23, 23 & 24 Marks		70 Marks	25 Marks
Total Internal + External Marks of Practical Paper				100 Marks	36 Marks
For B.Sc. Semester : V to VI : (Internal Practical Evaluation)					
Internal Evaluation	College	Components for Continuous Internal Assessment in Each Practical Paper B.Sc. Semester : V to VI			
		Attendance	10 Marks	60 Marks	22 Marks
		Record Book & Journal	10 Marks		
		Viva	10 Marks		
		Internal Examination	30 Marks		
For B.Sc. Semester : V to VI : (External Practical Evaluation)					
External Evaluation	University	External Practical Examination Sem V : 4 Practicals : 35 Marks each Sem VI : 4 Practicals : 35 Marks each		140 Marks	50 Marks

2.3.2 How does IQAC contribute to improve teaching-learning process?

IQAC acts as a link between Principal and faculty members. It mainly contributes for the qualitative aspects of the college to accomplish academic excellence. IQAC's contribution to improve teaching-learning is as follows:

- **Planning and Execution:** IQAC of the College is actively involved in planning and execution of academic calendar, departmental plan & individual teaching plan. Moreover, IQAC also emphasizes on quality control of the teaching, learning, and evaluation process.
- **Use of Resource Material**: IQAC encourages faculty members to use textbooks, reference books, and internet facility, e-resources and e-journals available on INFLIBNET, N-LIST website for preparing their lectures for effective teaching.
- **Infrastructural & ICT Facilities**: IQAC takes care of enhancing the infrastructural facilities, ICT facilities, equipment for laboratories, books for libraries so that faculty members can improve their teaching-learning process.
- **Participation in Faculty Development Programmes:** IQAC encourages the faculty members to participate in orientation programmes (OP), refresher courses (RC), faculty development programmes (FDP), short term courses (STC), capacity building programmes, workshops, etc. to enhance their knowledge to improve teaching.
- **Knowledge Sharing:** Under the Guidance of Principal, IQAC has established a common practice in the college that a faculty member, who has participated in such OP, RC, FDP, STC etc., has to share the knowledge they gained from such programmes.
- **Collects & Analyze Feedbacks on Teachers form Students'** collects and analyze the feedback on teachers from students and the outcomes are shared to the respective HoD for further improvement in teaching-learning of the teachers.

2.3.3 How is learning made more student-centric? Give details on the support structures and system available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

- **Effective, Interesting & Interactive Teaching-Learning through ICT Facilities:** Teachers prepares Power-point presentations (PPTs) and make use of multimedia projector in their teaching - learning process to make class more effective, interesting and interactive from the students' point of view. Teachers also prepare transparencies and make use of Over Head Projectors (OHP), Audio-visual teaching aids.
- **Teaching-Learning Process at Students' Level of Understanding:** Teacher use to develop good rapport and healthy relationship with students in order to know their background knowledge and understanding of the subjects, and accordingly design student centric classroom teaching - learning process and takes care of imparting knowledge to the students looking to their level of understanding.
- **Encourage Students to make use of Resource Materials to Carryout Assignments:** The faculty members provide initial essential notes to the student concerning their course topics. Assignments are provided to students to encourage self-study. Teachers encourage them to carryout assignments on

their own through appropriate use of text books & reference books in the library and e-resources from internet through free Wi-Fi facilities available in the college.

- **Learning through Experiments:** As a part and parcel of basic science study, students have to perform experiments / practicals as per the syllabi of their courses. The experience of doing practicals, taking observations and exploring something out of it and knowledge gained from it is far more valuable, long lasting and more personal than any other type of education.
- **Seminar:** In order to impart student centric interactive learning approach, seminars are arranged for final year students and they are encouraged to give seminar on the topics related to their course. As a result, student has to undergo self-study and prepare the topic thoroughly for presentation. ICT facilities are also made available to students if they wish to present PPTs. Moreover, seminar may help students for interactive & peer learning.

- **Field Visits / Study Tours:** Various departments also organize field visits and study tours for experiential learning of students.
- **Project Based Learning & Participation in Science Exhibition:** Students are encouraged to participate in intercollegiate science exhibition for presenting models. Interactive and peer learning takes place when the students together work for such projects. Teachers guide them whenever they need help while they are preparing their models.
- **Participation in Popular Lectures / Seminars / Conference:** The students are also sent for taking part in seminars and expert popular lectures conducted by other colleges.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

A Nurturing of Critical Thinking and Scientific Temperament: College nurtures critical thinking and scientific temperament among the students through various activities like…

- **Organizing Science Exhibition**: By organizing science exhibition in which the students from other adjoining colleges of the district are also invited. Total 33 working models and 58 poster presentations on science topics were made by the students in this exhibition. Out of which the three best models and poster presentation were selected and the presenters were given prizes. This exhibition was organized by the institute on 19th and 20th March, 2015.
- **National Science Day Celebration:** National Science day celebration and an exhibition on Einstein's life history and Archimedes life history were also organized by the institute.
- **Expert Lectures:** College also organizes seminars and expert lectures by inviting the renowned scholars from PRL, ISRO and IETE. Following experts have presented invited talk in the institute.
  - Dr. Chintan Bhatt
  - Dr. KishorMandaviya
  - Dr. Rajmal Jain, Dean, KSV-Gandhinagar & Ex. Scientist PRL
  - Dr. T. R. Ananthakrishnan

- **Stage Show of Physics Experiments:** College has organized a stage show of Physics experiments for the students as a pre-convention activity of the 31st National Annual IAPT Convention held at Gandhinagar. The Stage show was performed by nationally renowned scientist Dr. T. R. Ananthakrishnan.

- **Fields Visits:** College also conducts fields visits in order to inculcate scientific temperament for the benefits of the science students. They are taken to visit Facilitation Centre for Industrial Plasma Technologies (FCIPT), Institute for Plasma Research (IPR), Indian Farmers Fertilizer Cooperative Limited (IFFCO), Forensic Science Laboratory (FSL), Entrepreneurship Development Institute of India (EDI), Sardar Sarovar Dam and some industries.

- **Participation in Seminar:** Participated with some enthusiastic third year physics students in One Day National Seminar on Light Scattering and FP Interferometry organized by Physics Department, Gujarat Arts & Science College, Ahmedabad on 27th August, 2016.
- **Educational Tour:** Biology department also conducts educational tour every year and take students to visit of famous botanical gardens and forests.

- **Participation in National Graduate Physics Examination (NGPE):**

Department of Physics encourages physics students to participate in the National level examination National Graduate Physics Examination (NGPE) which is conducted by Indian Association of Physics Teachers – Dehradun, every year. The number of T.Y. Physics students, who appeared in NGPE is given in the table 2.9.

Table:2.9: Theory & Practical Evaluation Strategy

Academic Year	No. of students enrolled in NGPE examination
2011-12	16
2012-13	17
2014-15	26
2016-17	22

- College also organized two day 'Hands-on' workshop for students in collaboration with ISTAR. On first day students are given theoretical guidance by the experts and on the second day they are taken to the industries for practical knowledge. 50 students having Chemistry in the final year participated in this workshop.

B Nurturing of Creativity: College nurtures creativity among the students through various activities like…

- **Saptdhara Activities:** In order to nurture the creativity of student, college provides the platform to show their creativity, talent and skills in extra-curricular as well as cultural activities under Swarnim Saptdhara programme. College also conducts inter-college competitions.

- **Knowledge Corner Board:** Under the *Gyandhara* students are provided unique platform to display their creative ideas, creative writing, and informative materials on a pin board known as Knowledge Corner.
- **Elocution Competition:** College also organizes elocution competition for students on various days and provides a stage to express their views.
- **Best Student of the Month**: Recently, college has also started to declare "Best Student of the Month" in order to encourage and appreciate students' performance during the month.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

A Available Technology and Facilities in the college for effective teaching:

- **Digital Podium**
- ***SANDHAN*- All Gujarat Integrated Classroom (BISAG Room):**
  - Ceiling mounted Multimedia Projector and Screen
  - DTH system (Dish & Receiver) to receive BISAG Channels
  - Computer with Internet Facility
  - Sound System: Audio Amplifier, Microphones, Collar mic with Speakers
- **Conference Room**:
  - Ceiling mounted multimedia projector
  - Wall mounted screen
  - Audio Amplifier with Speakers
  - AC Facilities in conference room
- **Digital English Language Lab (DELL):**
  - DELL with 25 up-to-date Computers.
- **Multimedia Projectors** (Physics, Biology, Microbiology Departments)
- **Computer & Printers Facility**
  - IQAC Cell
  - Examination Cell

  - All the departments
- **Fast Copier Machines**
  - 3 Copier Machines
  - 1 is used for Examination Purpose for duplicating question papers
  - 1 is used for Administrative purpose in office to take bulk printouts like Examination forms, Examination Hall Admit Cards, etc.
  - 1 is used at Library to take printout of open source e-material
- OHP (Microbiology Departments)
- Internet Facilities & Free Wi-Fi Campus
- Gujarat State Wide Area Network (GSWAN) Connectivity
- Well Equipped Laboratories in each of the department of college

B ***Library:*** Comprising of text books, reference books, Periodicals, Magazines, computer with internet facility and e-resources, Journals, availability of access to 31 lakhs of e-books and more than 6000 e-journals under National Library and Information Services Infrastructure for Scholarly Content (N-LIST) programme of INFLIBNET.

C ***E-Resources:***

- College has provided user ID and password to all the faculty members, so that they can access e-resources from N-LIST programme of INFLIBNET. Faculty members can access the available e-resources from anywhere any time without going to college library or INFLIBNET. This facility is frequently used by the Faculty members for the improvement of teaching – learning process.
- Video CDs/DVDs of the lectures delivered on *SANDHAN* programme.
- Teachers and students are encouraged to use open source material
- Faculty members frequently use power point presentations together with conventional method of black board teaching.

D ***SANDHAN- All Gujarat Integrated Classroom:***

It is an initiative by Office of Commissioner Higher Education (OCHE) and Knowledge Consortium of Gujarat (KCG), Department of Education - Government of Gujarat.

To provide quality education in this era of technology the Government of Gujarat has started the initiative *SANDHAN*- All Gujarat Integrated Classroom which facilitates virtual teaching and discussion (Interactive learning). This initiative enables students to have access to lectures delivered by eminent academicians across state, nation and from abroad by leveraging technology optimally. Our institute facilitates students to access this facility in the BISAG/ SANDHAN hall.

E ***Virtual Groups*****:** All the faculty members including Principal, IQAC members, Heads of the Departments and chair persons of various committees are connected with each other through official virtual group on social media.

2.3.6 ***How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminar, workshops etc.)?***

Exposure of Faculty for Advanced Level of Knowledge & Skills:

- **SANDHAN- All Gujarat Integrated Classroom:**

Students are encouraged to attend the Lectures through SANDHAN - All Gujarat Integrated Classroom, in which lectures are delivered through teleconferencing by eminent academicians across the State and Nation from

the studio & uplink station of BISAG, Gandhinagar. Our institute facilitates students to access this facility and experience virtual teaching in the receiving end at BISAG/ SANDHAN hall. Faculty members not only facilitate such lectures but also provide experience of blended learning.

- **Teaching-learning through ICT:**
  Faculty members also conduct lectures by the optimum use of ICT in order to increase the effectiveness of teaching-learning process.

Exposure of Faculty for Advanced Level of Knowledge & Skills:

- **Participation in Conferences / Workshops / Seminar:** Faculty members participate in State, National and International level conferences, seminars, symposia, workshops and also present their research papers. They also visit different institutes to give lectures on the subject when invited.
- **Participation in Capacity Building Programmes:** Faculty members are encouraged to participate in OP, RC, FDP, FIP, STC etc.
- **Sharing of Knowledge &Experience:** After successful completion of their OP / RC / FDP / STC programmes, faculty members share their knowledge and experiences with other staff members in the presence of head of the institution by giving presentation which is also followed by the discussion. And also, they make use of their knowledge while teaching in a classroom.
- Government of Gujarat has started the initiative SANDHAN- All Gujarat Integrated Classroom which facilitates virtual teaching and discussion (Interactive learning). This initiative enables students to have access to lectures delivered by eminent academicians across state, nation and from abroad by leveraging technology optimally. Few faculty members have delivered such live and interactive lectures from SANDHAN. Dr. Y.S. Patel, Dr. R. K. Parwani and Dr. C. K. Chauhan – faculty members of Chemistry, Botany and Physics department respectively are the course coordinators at *SANDHAN*.
- **Dr. K. G. Chhaya** and **Dr. P. A. Vadher** were nominated by Education Department, Government of Gujarat to participate as one of the delegate of British Council India in **UK study tour** from 1st December, 2013 to 8th December, 2013. During the tour visited Higher Education Academy, UK and other Universities for sharing best practices in teaching and learning, observing use of technology enabled teaching and learning practices, getting an overview of Professional standard frame work (PSF) widely practiced in UK universities, studied Accreditation, Recognition and Reward processes in UK universities and HEA's Continuous Professional Development (CPD) schemes in UK.
- **Dr. R. K. Parwani** attended and presented her research paper titled "Effect of Nitrogen Fertilizer in Different Concentration and Combination with Phosphorus and Potassium on Growth and Biomass Production of *Cenchrusciliaris*" in the international conference 19th European Biomass Conference held in **Berlin, Germany** during 6th-10th June, 2011.
- **Dr. Parwani** has also participated in 3rd International Conference on Agriculture and food held at Elenite, Bulgaria during 1st - 5th June, 2015.
- **Dr D. A. Odedara** has participated in Borneo (Rain forest in Malaysia and Brunei countries) Bird Race Festival held at Malaysia and Brunei during 31/5/2013 to 9/6/2013.
- **Dr. C. K. Chauhan** participated as an **invited speaker** and presented talk on "*In-vitro* crystallization, characterization and growth Inhibition study of Urinary Type Struvite crystals" in an International Conference on Materials for

Advanced Technologies-2011 (ICMAT-2011) at **Singapore** from 26th June to 1st July, 2011.

- expert's lectures are organized for students and students are supposed to question and get their confusion cleared. If some other institutes invite our students to attend some scholarly lectures, our faculty takes our students to attend and benefit themselves from it.

2.3.7 Detail (process and the number of students/benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring academic advice) provided to students?

Academic Guidance &Support:

- Academic counseling is provided to select their core & elective subjects
- Faculty members act as mentors and look after student's attendance, progress in assignment work, academic progress, contribution in interaction during classroom teaching and practical work.
- The institute provides guidance and material to those students appearing in National Graduate Physics Examinations conducted by Indian Association of Physics Teachers. The number of students appeared in last four years are as mentioned in table 2.9.
- Students are encouraged to participate in the National Essay Competition organized by Department of Atomic Energy.
- The students are encouraged to participate in seminars and conferences organized by various institutes.

Career Guidance &Support:

- **UDISHA Cell:** Universal Development of Integrated Employability Skills through higher education agencies – a career counseling and placement cell has been established in the college.
- **Seminars for Career Guidance:** Subject related carrier guidance seminars are conducted by the respective departments.
- **Special Classes for Career Guidance & Preparation of Competitive Exams:** From the academic year 2016-17, college has started special morning two hours' classes for the students to provide guidance for the preparation of competitive examinations and encourage them to appear in competitive exams. Nearly 225 students are enrolled for these classes. Mr. G. R. Patel takes care of these classes.
- **Participation in Placement Drive of INFOSYS:** Final Semester Students from Physics &Mathematics discipline having good academic records were enrolled and encouraged to participate in the campus interview of INFOSYS held at Gujarat University. Necessary guidance and material was provided to the students for the preparation. 22 students appeared in online test conducted by INFOSYS at Gujarat University on 30/1/2017.
- List of successful students of final semester was provided to HR Titan Solutions, Valem Polytechnic, Indian Laminate Manufacturer's Association and Reliance Industries Limited-Jamnagar regarding recruitment / placement when they approached our institute.
- **General Knowledge Test**: This cell conducts the general knowledge tests of the students and guides students accordingly based on their performances.

- **Free Subscription of Gujarat Rojgar Samachar:** Based on results of general knowledge tests conducted in 2016, one year free subscriptions of Gujarat Rojgar Samachar (State level employment newspaper) are provided to the 128 successful students.
- **Career Guidance to Female Students:** Career guidance was given to 46 female students by DSP office, Police Training center, Gandhinagar.
- **Participation in Seminar on Entrepreneurship at EDI:** 50 female students along with the female faculty members visited Entrepreneurship Development Institute (EDI) and participated in seminar on Entrepreneurship on 07/08/2015.
- **Distribution of E-material:** In year 2014-15 meritorious students were given CD's which contains almost 10000 questions of general knowledge.

Skill Oriented Guidance &Support:

- **Participation in Soft Skill Training Programme**: In year 2015-16, 60 students of semester-6 were identified and sent to participate in a week long soft skill training programme at the Government Commerce College, Gandhinagar.
- **Organized Workshop:**

In the academic year 2015-16, two days' workshop was organized in collaboration with Sophisticated Instrumentation Centre for Applied Research and Testing (SICART), Vallabh vidyanagar and Institute of Science and Technology for Advanced Studies & Research (ISTAR), Vallabh vidyanagar. Expert lectures were arranged on the first day, whereas on the second day the students were taken to ISTAR for 'Hands-on Experience' to gain the knowledge about the practical skills required to handle the sophisticated instruments in industries. In this way, industrial skills are being inculcated in the students.

Personal and Psycho-Social Support:

- College helps to address & sort out the personal problems of the students.
- Faculty members addresses the general student life problems such as stress related to study, exam phobia, nervousness, peer pressure, etc. and accordingly mentor the needy students individually.
- Anti-ragging cell keeps constant careful vigilance on campus activities.
- CWDC of the college takes care of the problems of the girl-students.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

Innovative teaching methods adopted by the faculty: Following innovative teaching approaches & methods adopted by faculty:

- **Use of ICT in Teaching – Learning Process:**
- Use of Multimedia Projectors, Computers, OHPs
- Use of *SANDHAN* – All Gujarat Integrated Classroom
- Apart from conventional chalk and black board method faculty members make use of power point presentations.
- Use of internet and Wi-Fi facility
- Use e-content, e-resources available from N-LIST, INFLIBNET and other open source material on internet.
- Use of CDs / DVDs of *SANDHAN* lectures
- Faculty members make use of internet connection and make visualized certain physical phenomena which are not possible to explain only by presenting them the theory. As a result, students also started accessing net and get additional information through internet. Some students also prepare power point presentation and present themselves in the classroom.

More Emphasis on Practical Work: Demonstration of Experiment Followed by Hands on Experience: All the departments have well equipped laboratories and faculties make use of it to provide the real understanding of the subject by performing the experiments included in the curriculum.

Use of Library: Use of textbooks, reference books, periodicals and journals available in college as well as University library. Faculty members keep pace and update the knowledge with the recent development in science and technology.

Organize Field Visits / Study Tour: Departments organizes the field visits and study tour to Research Institutes & Industries for experience based learning.

Use of Continuous Internal Assessment: As per the University guidelines all the department follows the procedure to assess students continuously by providing course / paper based assignments, conducting quiz tests, viva, regular checking of practical record books and journals, conducting students' seminars based on curriculum etc.

Discussion & Sharing of Knowledge among Faculties: The faculties discuss such issues in the common room among like-minded teachers very often. They also get information of latest development in the subject concern through Refresher/ Orientation Courses and faculty development programmes which in turn are conveyed, to the students. After successful completion of the course the faculty members share their knowledge through presentation in the presence of the head of the institution and other faculty members.

Efforts made by the institution to encourage the faculty to adopt new and innovative approaches

- Faculty members are encouraged to use ICT facilities available in the college
- Faculty members are encouraged to use library
- Faculty members are encouraged to participate in conferences, seminars and workshops, expert's lectures.
- Faculty members are encouraged to participate in various capacity building programmes like OP, RC, FDP, STC on duty leave for updating their knowledge as well as innovative teaching techniques & skills in the interest

of the students. They utilize such knowledge and teaching techniques in classroom teaching.

- The institution motivates the faculty members to adopt innovative approaches by providing ICT facilities. Faculties are encouraged to attain the ICT based training so that students are benefitted by those methods.
- Institute organizes expert's lectures, motivational lectures on special events
- In order to encourage and appreciate the innovative practices of the faculty members, recently the head of the institute has started to declare best teacher of the month

Impact of such innovative practices on student learning

- Students' interest in the subjects taught by the use such facility is increased and academic results are improved in such subjects
- More number of students are attracted to attend ICT based lectures
- Students access Wi-Fi facilities for self-learning
- Students can understand the subject well by the use of additional e-resources
- All such efforts made by the institute to have a definite impact in students' learning and encouraged them to think out-of-box.

2.3.9 How are library resources used to augment the teaching-learning process?

- Faculty members regularly use all the available library facilities to update their knowledge and prepare themselves for resourceful, effective and interesting lectures to enhance effectiveness of teaching – learning process.
- The faculty members and students keep pace with recent developments in the subject through textbooks, reference books, journals, periodicals and e-resources.
- All the faculty members are provided username and password for N-LIST INFLIBNET facilities of e-resources.
- The books on science subjects are very costly and every student cannot effort to purchase them. Hence, the library is the best source of getting such books for studies. Students are encouraged to make full use of the library – its reference books and other indispensable books pertaining to their respective subjects. Faculty members help them to explain and guide the students as and when need arises.
- Book exhibitions on campus are organized to facilitate faculty members in choosing the standard and relevant books.
- The students are encouraged to develop the reading habits and are regularly advised to spend their free time in the library.
- In order to promote additional self-learning, students are encouraged to use library resources to carry out their assignments, reference work, prepare themselves for quiz as well as for the presentations in seminars and preparation of their own subject materials.
- As per the pillars of learning mentioned in UNESCO's report "***Learning the Treasure Within***", college has augmented teaching-learning process by giving more emphasis on "***Learning to know***" and "***Learning to learn***" through Library resources.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

- The syllabus is completed by the faculty members within stipulated time as per the course plan and calendar. However, special extra classes / practical sessions are also arranged to cope up with the shortage of time.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

Continuous Internal Assessment:

- Continuous internal assessment is carried out to evaluate the performance of students' learning as mentioned in detail in section 2.3.1.

Monitoring and evaluation through IQAC:

- The institute monitors and evaluates the quality of teaching learning through IQAC. It also conducts regular meetings of the heads of the departments to have a close watch on the progress of teaching-learning as per the calendar.
- On the basis of feedbacks received from different stakeholders, it monitors and evaluates the quality of teaching-learning.
- Teachers and students may also approach the members of IQAC cell and meet personally to give constructive suggestions regarding teaching-learning.

Feedback on Teachers from Students by Questionnaire:

- For the evaluation of teacher, the college has introduced the practice of getting feedback from the students by a general questionnaire. The questionnaire used to obtain students' feedback on teachers is as shown below. The questionnaire contains 10 items for the assessment of teacher. Students have to give their feedback on each of the items by giving appropriate grade (A, B, C, or D) designed on 4 – point scale. The grading and scaling is as below:

Grade	Qualitative Meaning	Points
A	Very Good	4
B	Good	3
C	Satisfactory	2
D	Unsatisfactory	1.5

- The analysis of the feedback is carried out through spread-sheet and Cumulative Grade Point Average (CGPA) is calculated for each of the teacher. The histogram in figure 2.3 shows the subject wise CGPA obtained for each teachers of the college, which reflects overall rating of the teachers. From the findings of feedback, teacher is asked to do better in the respective area for the improvement.
- The outcome of the feedback analysis is informed to the respective teachers so that they may understand their strengths and weaknesses, which ultimately lead to overall improvement of the teaching-learning process.

Suggestion Box:Suggestion boxes are placed on different sections of the college campus. Students are encouraged to use the suggestion boxes to express constructive suggestions regarding teaching-learning process.

Grievance Redressal Cell:

College has also established grievance redressal cell, which attempts to address genuine problems and complaints of students.

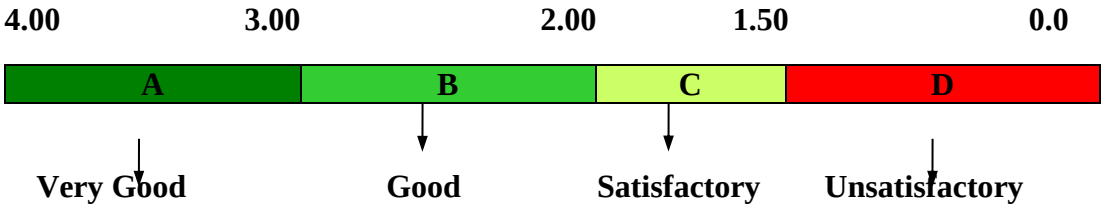
Feedback Questionnaire

Government Science College, Sector-15, Gandhinagar

Student Feedback on Teachers

Department: Semester/Term/Year:

Please rate the teacher on the following attributes using the 4 -point scale shown



Name of the Teacher:

Parameters	**A** Very Good	**B** Good	**C** Satisfactory	**D** Unsatisfactory
1. Knowledge base of the teacher (as perceived by you) 2. Communication Skills (in terms of articulation and comprehensibility) 3. Sincerity / Commitment of the teacher 4. Interest generated by the teacher 5. Ability to integrate course material with environment/other issues, to provide a broader perspective 6. Ability to integrate content with other courses 7. Accessibility of the teacher in and out of the class (includes availability of the teacher to motivate further study and discussion outside class) 8. Ability to design quizzes /Tests /assignments / examinations and projects to evaluate students understanding of the course 9. Provision of sufficient time for feedback 10. Overall rating				

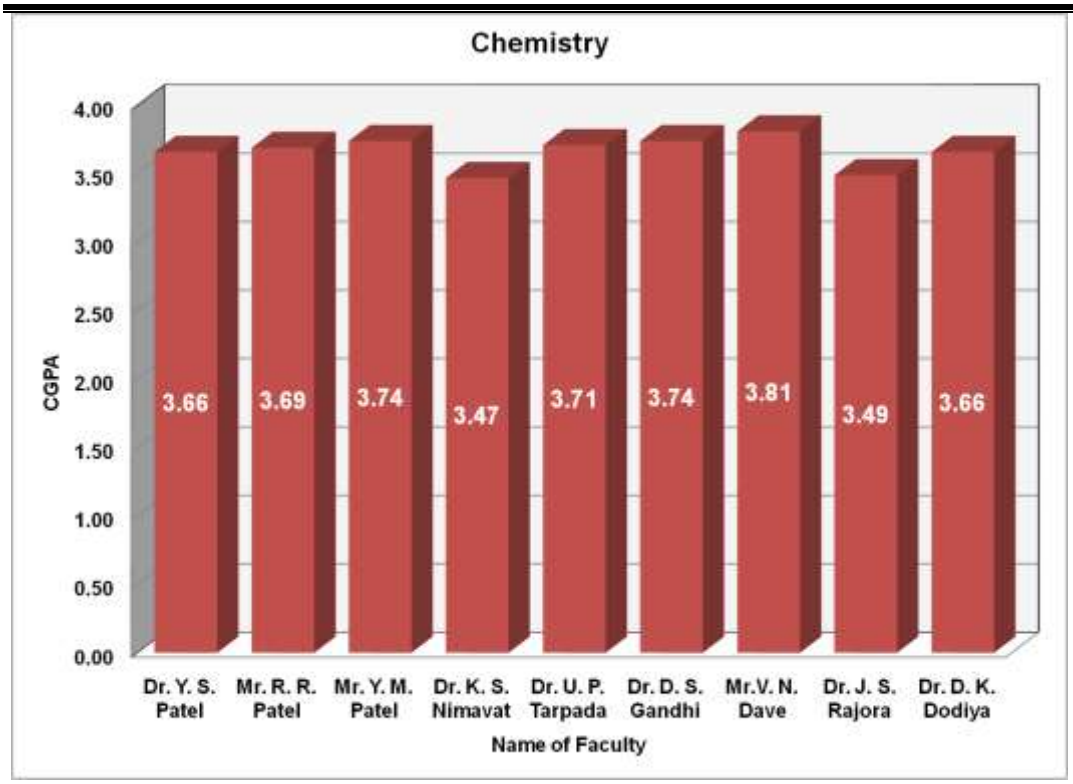


Figure: 2.3 (a): Chemistry Teachers' CGPA from Students' Feedback

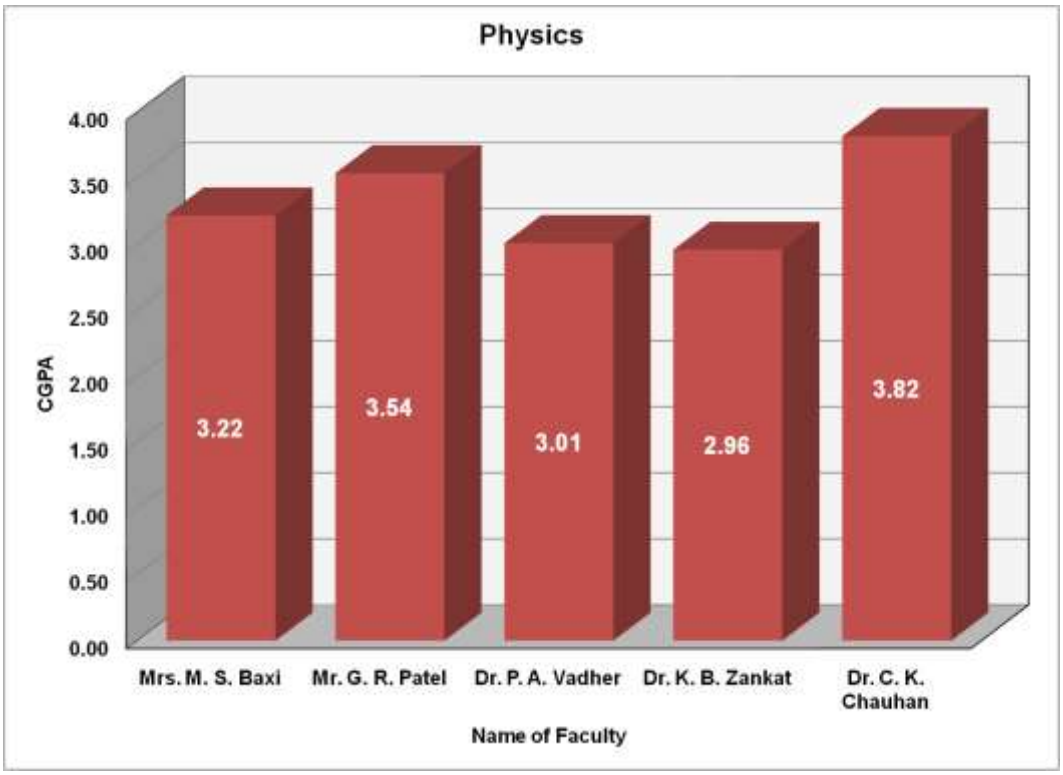


Figure: 2.3 (b): Physics Teachers' CGPA from Students' Feedback

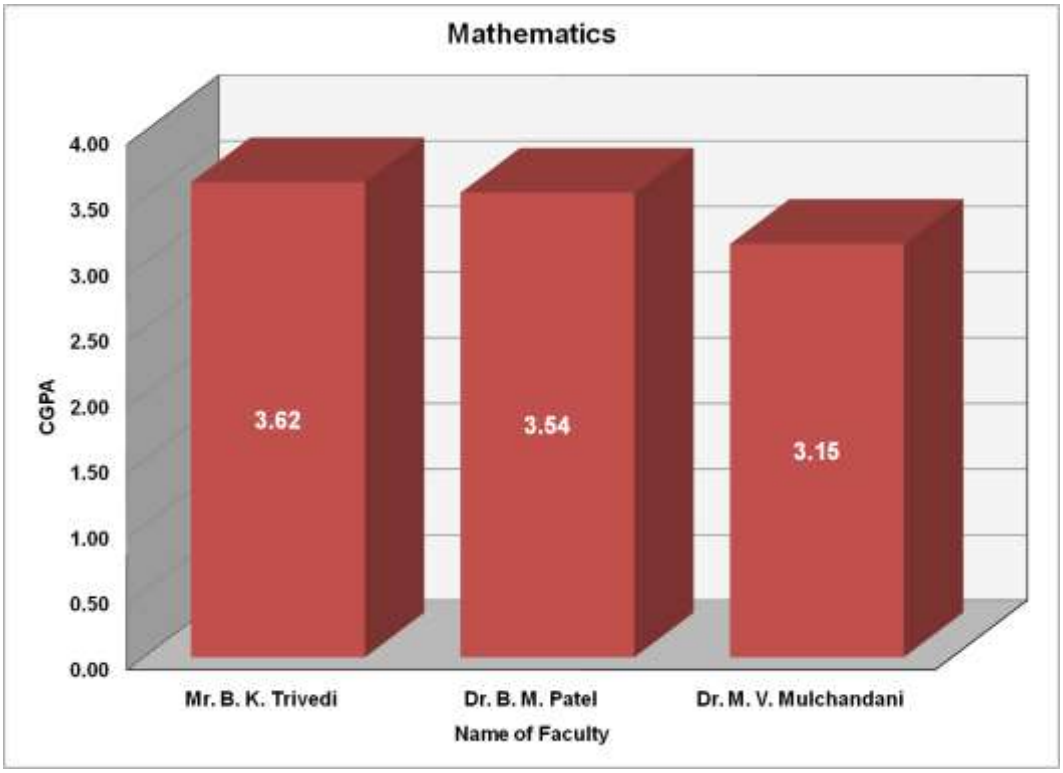


Figure: 2.3 (c): Mathematics Teachers' CGPA from Students' Feedback

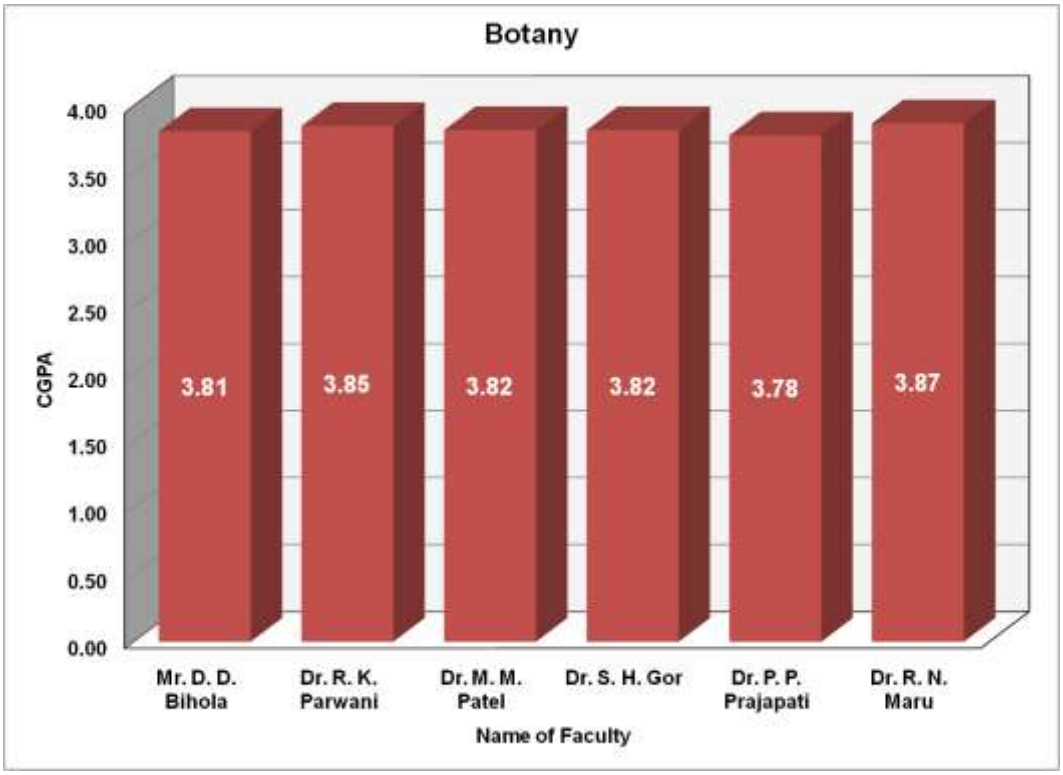


Figure: 2.3 (d): Botany Teachers' CGPA from Students' Feedback

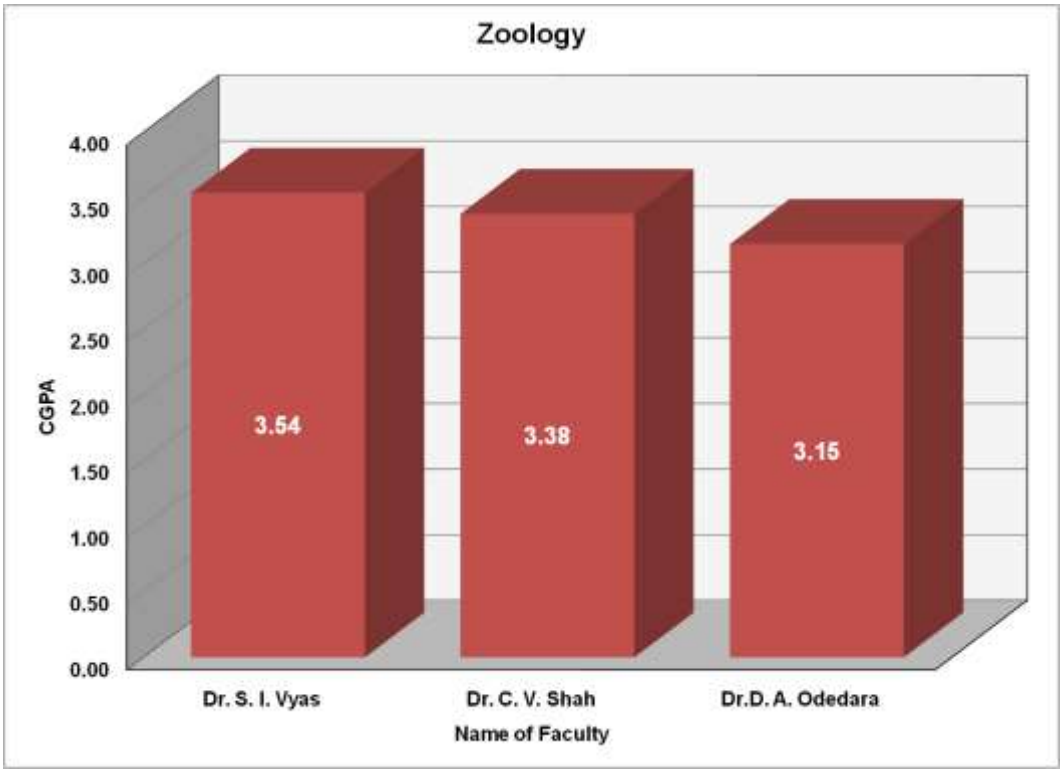


Figure: 2.3 (e): Zoology Teachers' CGPA from Students' Feedback

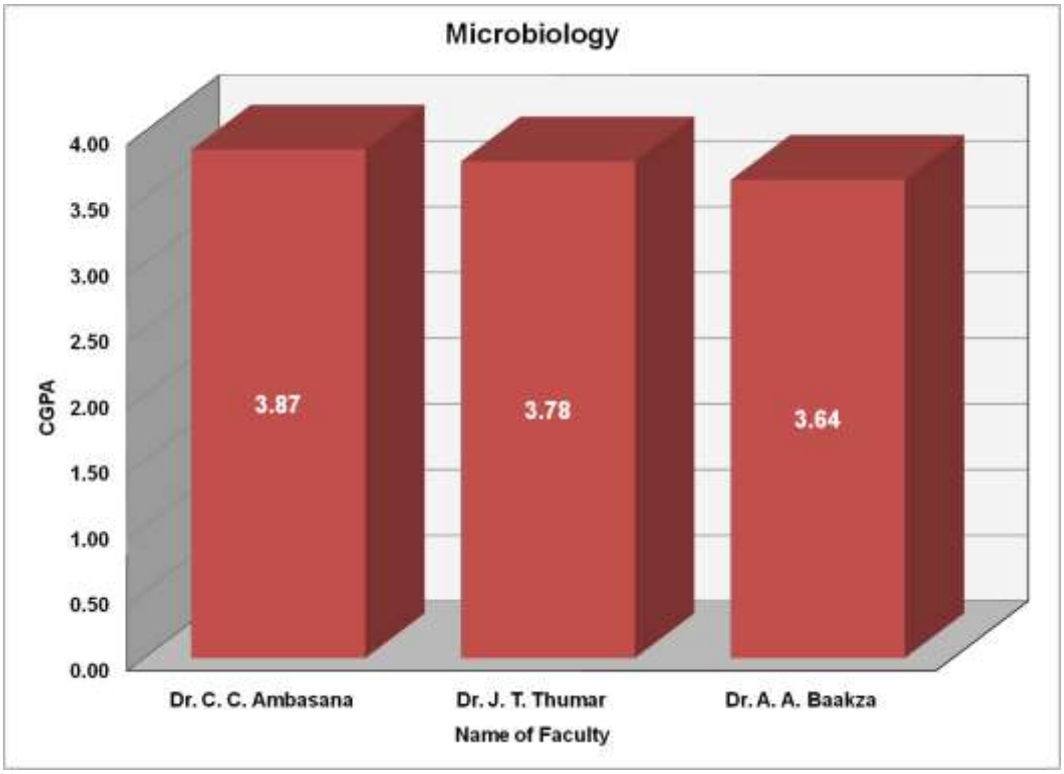


Figure: 2.3 (f): Microbiology Teachers' CGPA from Students' Feedback

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the Curriculum.

Strategies for Recruitment of Qualified and Competent Permanent Teachers:

- Ours being a government college, the selection process of permanent teachers is carried out by State Government approved agency **Gujarat Public Service Commission** (GPSC) as per the UGC Regulations-2010 and Government Recruitment Rules. On basis of the number of vacant seats and sanction posts in Government Colleges of Gujarat, GPSC publishes the advertisement of all the vacancies of teachers in well-known print media of Gujarat. Sufficient time is given for the eligible candidates to apply. Then GPSC conducts written examination for all the eligible applicants. Subsequently, GPSC conducts face to face interview for the successful candidates in written examination. Final selection is carried out by GPSC on the basis of written examination and interview. This is how the selection of teachers in Gujarat Education Service (GES) Class II cadre is carried out for Government colleges.
- After the completion of selection process by the GPSC, the list of all successful candidates is recommended to **Education Department, Government of Gujarat** for the further directions and recruitment orders.
- The list of recommended candidates is further sent to the **Office of Commissioner of Higher Education (OCHE)**, Gandhinagar by the Department of Education, Government of Gujarat. Based on the number of vacant seats and sanction posts in Government Colleges of Gujarat, the office of Commissioner of Higher Education gives posting to the successful candidates selected & recommended by GPSC after the completion of document verification, Medical fitness and police inquiry of the selected / recommended candidates. This is how recruitment procedure for the permanent teachers is carried out in government colleges.

Strategies for Recruitment of Qualified Teachers on Contractual Basis:

- In case, if in respective subjects the number of successful candidates in GPSC are less as compared to the vacant seats in government colleges then Office of Commissioner of Higher Education follows the proper process of selection and recruit the selected candidates on 11 months' contractual basis looking at the benefits of the students. And still if the seats are vacant then the head of the institution based on the sanctioned post and workload in the respective subjects can recruit visiting faculties in the benefits of the students. Both the recruitment on contractual basis and visiting faculty are based on Government Recruitment Rules and UGC Regulations-2010.
- The institution has well qualified faculty members and it continuously augments the capacity of faculty. The details of the teachers in present situation are as shown in table 2.10. Figure 2.4 (a to c) shows the staff profile with respect to highest qualification, permanent / temporary status and gender, respectively.

***Table: 2.10 Details of Teachers in Present Situation* (As on 31/1/2017)**

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.							
Ph.D.	1(Pri)	-	-	-	11	10	22
M.Phil.	-	-	-	-	-	2	2
PG	-	-	-	-	6	2	8
Temporary Teachers (*Adhyapak Sahayak*)							
Ph.D.	-	-	-	-	2	3	5
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	1	-	1
Part-time Teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-
Total	1	-	-	-	20	17	38

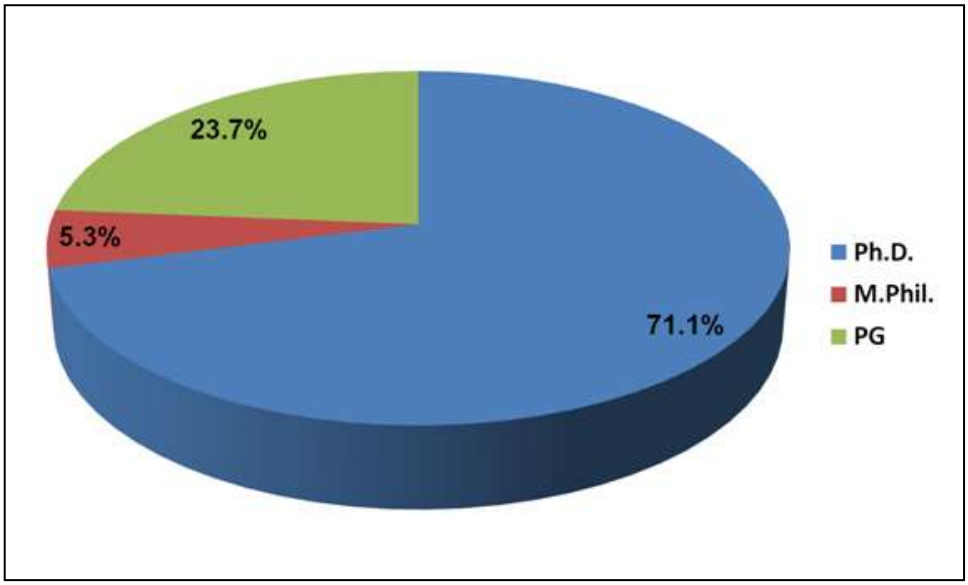


Figure: 2.4 (a): Staff Highest Qualification Profile

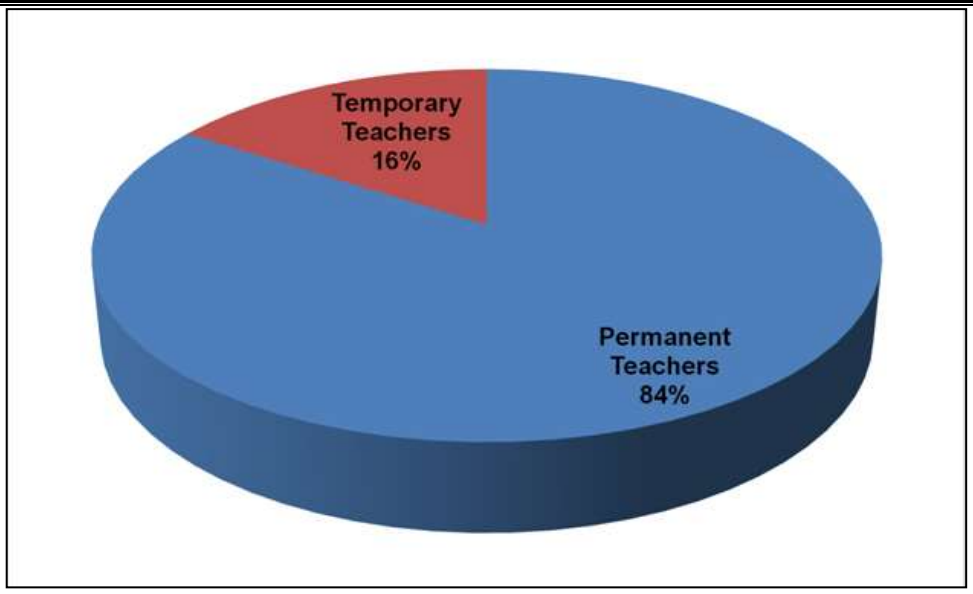


Figure: 2.4 (b): Staff Status Profile – Permanent / Temporary Teachers

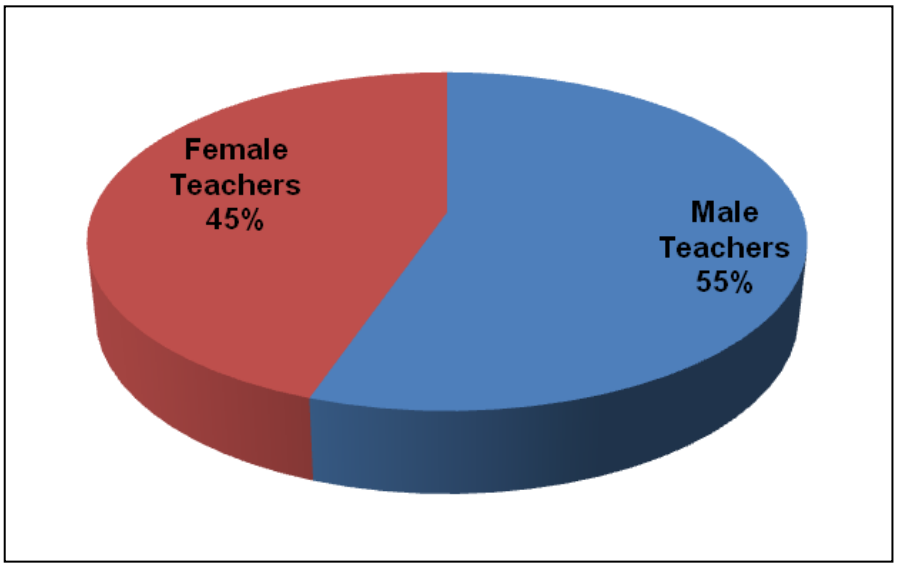


Figure: 2.4 (c): Staff Gender Profile

Strategies for the Retention of Faculty Members:

- Cordial working environment is provided to all the faculty members for their progress and overall development. Not a single faculty member has left the college for this reason. However, being a Government college transfer of faculty members takes place as per existing rules / norms of transfer established by Government.
- The college grants sabbatical leave to faculty members for higher studies.
- The college also grants duty leave to faculty members and encouraged to participate in OP, RC, FIP, FDP, STC etc. for their capacity building and upgrade their academic qualifications so that they can fulfill their minimum requirement for career advancement.
- Faculty members are encouraged to participate in national and international conferences, seminars, workshops. Many faculty members have presented

their research papers in national and international conferences. Nearly 05 faculty members have visited foreign universities for either presentation of research papers or to attend workshops or to share best practices in education.

- Some of the faculties have played key role in the conceptualizing, designing, planning and implementation of various initiatives like CBCS, Saptadhara, etc. given by Knowledge Consortium of Gujarat (KCG) and Commissionerate of Higher Education.
- Moreover, few faculty members are involved in syllabus formation as they are members of board of studies in their subjects.
- Some of the faculty members have published books which depict their involvement and expertise in the subject.
- In addition to this, 05 faculty members are research guides and have guided Ph.D. students under them.

2.4.2 How does the institute cope with growing demands/scarcity of qualified senior faculty to teach new programmes/modern areas (emerging areas) of study being introduced?

New Recruitments of Permanent and Temporary Faculty Members:

- In order to cope up with the growing demand of B.Sc. and scarcity of faculty in college, the recruitment of new 11 permanent faculties as assistant professors as well as 06 temporary contractual faculties as *Adhyapak Sahayak* was carried out by GPSC / OCHE as mentioned in section 2.4.1.
- Out of newly recruited 11 permanent faculties, 07 faculty members are Ph.D.'s, 05 faculty members are NET qualified, 02 are SLET qualified and 02 faculty members are GATE qualified. Moreover, 02 faculty members have consecutively cleared NET examination thrice in Chemistry and Mathematics respectively.
- In the academic year 2016-17, Commissioner of Higher education office has provided 06 contractual based lectures from which 05 are Ph.D.'s, 01 is NET qualified and 01 is SLET qualified.

Strengthening Capabilities of Faculties in Modern Emerging Areas:

- For the overall development of faculty members, the institute gives ample freedom to enhance his/her academic capabilities, knowledge and skills.
- Institution also encourages the faculty members to update their knowledge in the modern / emerging areas by enrolling them in RCs, STCs, FDPs, conferences, seminars and workshops based on advance techniques and ICT etc.
- Faculty members are also encouraged to take up minor and major research projects.
- Expert lectures are also arranged by the institute.

2.4.3 Provide details of staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing teaching qualities?

- The college encourages for research work and grants duty leave to participate in the Ops, RCs, FDPs, FIPs, STCs, Seminars, Conferences, etc.

The details of the participation in faculty development programmes as shown in table 2.11.

- The college also pays fees of faculty members for attending Course of Computer Concept plus (CCC+) for teaching staff started by the Gujarat Government.

A. Nomination to staff development programme:

Table: 2.11 Participation in Staff Development Programme

Participation in Academic Staff Development Programmes	Academic Year			
	2012-13	2013-14	2014-15	2015-16
Refresher Courses	3	3	-	1
HRD Programmes	4	3	9	8
Orientation Programmes	-	-	-	6
Staff training conducted by the university	2	-	4	-
Staff training conducted by other institutes	-	-	2	-
Summer/winter schools, workshops etc.	-	1	-	3

B. Faculty training programme organized by the institution to empower an enable the use of various tools and technology for improved teaching-learning

Teaching learning methods/approaches:

- Head of the institution, HoDs and senior faculty members provide informal orientation to other faculty members on the various aspects like…
  - CBCS System
  - Strategies for continuous internal assessment
  - Use of ICT in teaching-learning process
  - Use of Digital Podium, Multimedia Projectors for the effective teaching-learning process. Technical assistance is also provided through experts to use such equipment.
  - Use of Excel / spread-sheet for preparing Internal Mark-sheets
- The faculty members make use of ICT as well as different kinds of teaching learning techniques to provide student centric quality education to the students. The students are taken to the multimedia room for effective teaching through power point presentations.
- Students are also trained to use Multimedia projectors, Sound System, etc.
- Students are also trained and encouraged to give presentation by making use of power point presentation.
- Students also get the opportunity to take part in projects undertaken by the departments. (e.g. Soil Health Card Project and Biodiversity Project in collaboration with Biodiversity board). Expert lectures are arranged and educational tours are conducted by various departments.

Handling New Curriculum:

- With a view to having broader comprehension of newly introduced CBCS system, the faculty members participated in various seminars organized by KCG
- A few faculty members have worked in the initial development of CBCS system in Gujarat.
- As a member of the board of studies, some faculty members are also involved in designing the new curriculum in respective subject.
- Many staff members have contributed in textbooks writing for the new CBCS system.

Content / Knowledge Management:

- Knowledge management is tactfully carried out by faculties for creating, sharing, using and managing the knowledge and information of the content of particular course. Content / Knowledge management is an area where many faculty members have experimented their own methods in the execution of the syllabus to improve student learning.
- Most of the faculties use the student friendly approach in their teaching-learning, so that the students can learn the content of the course without any burden.
- By effective use of knowledge management, faculty members improve the efficiency and effectiveness of teaching – learning process.
- Faculty members are involved in exchanging and sharing of knowledge between individuals and groups.
- The students are made aware about the latest books and websites related to their specific course and subject papers.
- The students are encouraged to attend expert lectures, seminars and workshops to broaden their horizon.

Selection, development and use of enrichment materials: -

- Some faculty members have worked for the content development for the new syllabus introduced under CBCS system. Many departments prepare the lab materials for practical work in the laboratory.

Assessment:

- Assessment at Government Science College, Gandhinagar is an ongoing process as explained explicitly in section 2.3.1. As per university guidelines the college conducts internal examination at the end of each semester. The departments have their own continuous internal evaluation process, in which students have to submit assignment, face the quiz / viva, and give seminars.

Cross cutting issues:

- College also organizes special popular lectures, debates and seminar as well as faculty member also discuss following cross cutting issues in the class:
    - Cross cutting issue on gender inequality & importance of self-defense of girl students
    - Cross cutting issues on environment like disaster management, effects of Ozone depletion, climate change, global warming, etc.
    - Cross cutting issues on human diseases like HIV, AIDS, Dengue, Chikungunya, swine flu, etc.
    - Cross cutting issue on ways of digital payment

- The college organizes debates and seminars which focus on issues related to gender sensitivity, spirituality, patriotism etc.
- Exhibition and drawing competition on '*Save Girl Child*'
- Performed "play on AIDS" for awareness campaign

Audio Visual Aids / multimedia:

The college has digital podium with latest configuration having Wi-Fi interface. Training has been given to all the staff members for its usage. So, they can make use of it in their teaching-learning process.

Teaching learning material development, selection and use:

Many faculty members have excelled in writing books and manuals in their own subjects. They provide information about the latest e-books available on the internet. The faculty members are also involved in the process of selecting the text books, reference books, periodicals for the library use.

C. Percentage of faculty:

Faculty	**Participation Percentage of faculty**				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Total Faculty members	**26**	**28**	**40**	**37**	**36**
Invited as resource persons in workshops/seminars and conferences organized by external professional agencies	00 %	00 %	00 %	00 %	00 %
Participated in external workshops / seminars and conferences recognized by national/international professional bodies	69.2 %	42.8 %	40 %	51.4 %	41.7 %
Presented papers in workshops / seminars and conferences conducted or recognized by professional agencies	34.6 %	32.1 %	30 %	35.1 %	25 %

2.4.4 What policies / system are in place to recharge teachers? (e.g. providing research grants, study leave, support for research and academic publication, teaching experience in other national institution and specialized programmes, industrial engagement etc.)

Head of the institute is always keen to promote all those activities which academically 'recharge' teachers. Following are some of the long standing polices / practices in this regard:

- **Sanction Duty Leave:** The college sanctions duty leave for participation in conferences, seminars, workshops, symposia.
- **Sabbatical Leave:** The College grants sabbatical leave to faculty members for higher studies like Ph.D.
- **Participation in Faculty Development Programmes:** College encourages the faculty members to participate in orientation programmes (OP), refresher courses (RC), faculty development programmes (FDP), short term courses (STC), capacity building programmes, workshops, etc. to enhance and recharge their knowledge to improve teaching.

- **Nurture Research Aptitude:**
    - The college motivates to nurture the research aptitude in the faculty members.
    - Faculty members are encouraged to present their research papers in National & International conferences, seminars, symposia, etc. Few faculty members have participated & presented papers in the International conferences held abroad.
    - Faculty members are encouraged to submit their research proposals for minor and major research project to various funding agencies.

2.4.5 Give the number of faculty who received awards/ recognition at the state, national, international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

Best Poster Presentation Award:

Nil

2.4.6 Has the institution introduced evaluation of teachers by the students and external peers? If yes, how is the evaluation used for improving the quality of the teaching – learning process?

Yes, our institute has introduced teacher's evaluation by students.

Evaluation of Teachers by the Students through Feedback:

- The college has introduced the practice of getting feedback from the students by a general questionnaire. The analysis is done and is discussed in the meeting with Principal and heads of the departments.
- The analysis of feedback forms is also discussed in the meeting with the IQAC committee and conclusions are drawn. The analysis of the feedback is carried out through spread-sheet and Cumulative Grade Point Average (CGPA) is calculated for each of the teacher. The analysis of feedback is discussed in the meeting with the IQAC committee along with Principal and heads of the departments. On the basis of the outcome of feedback data, corrective measures are taken and new strategies are developed.
- The analyzed data is also shared with teacher, which not only helps him/her to understand his/her strengths and weaknesses but also helps for future improvement and encouragement.
- In case of problem the teachers are counseled.

Suggestion Box: There is a suggestion box where the students can express their views fearlessly.

Online Feedback: Students / Parents can also send their feedback through college website, or by e-mail.

Evaluation of Teacher's Work for CAS by Higher Authorities Through Performance Based Appraisal System: API Form:

- As per the UGC guidelines and the instructions from OCHE and Dept. of Education, Government of Gujarat, our institute has established Performance Based Appraisal System (PBAS) for teachers in order to maintain standards in higher education and for the purpose of career advancement scheme, since 2010.
- Faculty members have to fill up the API form in every academic year.

- IQAC cell keeps the record of each faculty members.

Evaluation of Teacher's Work by Higher Authorities Through Confidential Report (CR): Performance Appraisal Report:

- Being a Government College, as per the guidelines of Government of Gujarat, faculty members are considered in Gujarat Education Service (GES) class II cadre and have to fill up the self-evaluation part of "Performance Appraisal Report" every year for the evaluation of their work for the period of 1st April to 31st March in the format prescribed by Government of Gujarat.
- After receiving the filled PAR forms from all the faculty members, the Head of the Institute evaluate the things and expresses his/her views and send all the PARs (CR) to Commissioner of Higher Education for further reviewing.
- During the reviewing process, if some adverse remarks have been made against any of the faculty member by the head of the institution, the same is conveyed to the deceased faculty member asking him/her to defend oneself against the adverse remarks made by the Principal. The college makes use of this system for improvement of its own faculty.
- The university exam results are analyzed as one way of evaluation by external sources.
- College also holds Parent-teacher-student meeting to have an evaluation by external sources. This also sensitizes parents with respect to their wards' requirements and progress.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

The examination and evaluation pattern is in accordance with the guidelines given by the affiliating Gujarat University. The evaluation process is an ongoing process and is an integral part of the teaching learning process of the institute. The examination committee of the institute disseminates the evaluation processes to all its stakeholders well in advance through the following ways:

Awareness of the Examination Schedule through Academic Calendar:

- Academic calendar is prepared in accordance with the university calendar and it is circulated to faculty members.
- The tentative dates of internal examination and external University examination are informed to the faculty members and students well in advance through academic calendar of college.
- The students are informed well in advance about the actual exam timetable / schedule on the college notice board and also on the department notice board.

Awareness of the Evaluation Processes through Orientation Programme:

- Students are made aware about the following points regarding evaluation process during orientation programme conducted by the college at the entry level.
  - Strategies of Evaluation in CBCS semesterized system
  - Internal evaluation strategies followed by college

- External evaluation strategies followed by University
- Weightage of internal & external evaluation
- Components of internal evaluation: Attendance, Assignments, Quiz, Viva, Seminar, Journal, written internal test
- Format for calculating internal marks
- Question Paper style (pattern) of internal & external examination
- Tentative schedule of the internal & external examination

Awareness of the Evaluation Processes during Classroom Teaching:
Moreover, awareness of the evaluation process is also created during the initial lectures and mentoring sessions in classroom.

Awareness by Examination Committee:

- Examination committee takes care of the entire internal & external examination.
- New faculty members are oriented about the evaluation process. Updates about examination process are shared with faculty members during staff meetings.
- Students are timely informed to fill up University examination forms, and committee completes the process of online examination form submission through "Exam Form Correction System".

Awareness about the Internal Marks by Departments & Internal Marks Committee:

- Results of internal examination are displayed on the departmental notice board.
- Each student is intimated about the format for calculating internal marks and given an opportunity for rechecking and registering their grievances, if any, regarding internal marks before they are sent to University.

Information through website:

- The rules and regulations regarding the examinations are intimated on the web site as well as on the notice board.
- University and college websites also uploads required information regarding University circulars, notices.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

Major evaluation reforms of the Gujarat university:

- Choice based credit system (CBCS) is introduced as per university guidelines.
- Institution has also adopted semester system introduced by university.
- Internal test is conducted at the end of each semester by the institution.
- Monitoring of regular attendance of students, assignment submission and seminars/class room presentation by the students are made the part of continuous internal evaluation.
- Online submission of examination forms
- Exam hall admit cards are also generated online.
- Online submission of internal marks by college.
- Barcode sticker reading of seat number was introduced for transparency and also to nullify data entry error and faster processing.

- The college monitors the progress of the students through internal tests, seminars, assignment, laboratory work, classroom presentation, field study tours etc. and communicates it to the student.
- If required, answer sheets are shown to the students to bring about transparency.
- Results of the internal examinations are displayed on the college notice board and department notice board.
- If required, parents are counseled by the faculty for their child's better performance.
- The excellence in academic performance is duly rewarded with the place in the student union.
- College has adopted all the reforms initiated by the University and carried out effective implementation of such reforms.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution by its own?

Head of the institute conducts a meeting of examination committee, IQAC members, and heads of the departments of the college and discusses the college evaluation policy and its effective implementation. The following initiatives are taken by the institution:

- The guidelines issued by the university are discussed with staff members in detail, and action plans are finalized.
- The examination committee plays a role of liaison with University, college administrative staff, heads of the departments, faculty members and students for the smooth conduct of the internal as well as external examination.
- The committee as well as concerned faculty members remains present in the college during the conduction of the examination.
- All rules and regulations are displayed on the notice board before the examination for e.g. ban on the use of mobile phones, unfair means and their punishment etc.
- Principal reviews implementation of reforms in pre-and post-examination meetings with examination committee.

2.5.4 Provide details on the formative and summative assessment approaches adapted to measure student's achievement. Cite few examples which have positively impacted the system.

Formative and summative evaluation approaches are being used to measure the performance and achievements of students in the college.

Formative assessment approaches adapted to measure student's achievement:

- Formative evaluation method is used as continuous comprehensive assessment process to measure students' performance that helps teachers in improvising teaching-learning processes.
- Students are assessed not only based on their performance in final written examination but also through various evaluation methods such as punctuality in class through attendance, interaction of students during the teaching – learning process, diagnostic informal assessment through questioning during classroom teaching-learning process, classroom work,

homework, informal unit tests, unit wise assignments, quiz, students' seminar, presentations, observational skills and data keeping in record books during practical sessions, journal preparation, participation in excursion, reports of industrial and field visits, participation in co-curricular activities etc.

- Recently, we have established an automatic attendance monitoring system and started to take attendance of the students through biometrics.
- Regular medical check-ups of students at entry level are conducted to ensure physical and mental fitness of our students. This shows our holistic approach to keep student not only academically updated but also mentally and physically fit.

Summative assessment approaches adapted to measure student's achievement:

- Summative assessment approaches include,
  - Semester end internal written tests conducted by college
  - Semester end external written examinations conducted by University
  - Semester end practical examinations

Positive Impacts:

- By using multipronged approaches in formative internal assessment, we can take away the students from rote based learning and written examination.
- Students' attendance increased.
- Students regularly submit their assignments, journals.

2.5.5 Details on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioural aspects, independent learning, communication skills etc.)

- The process of internal assessment is carried out as per the guidelines of the university and is closely monitored by the examination committee, HoDs and Principal to ensure rigor and transparency.
- The results of internal marks are prepared confidentially on spread-sheets by the departments in close monitoring of HoDs. Departmental results are sent to respective internal marks committee for online submission and the process is carried out confidentially under the direct supervision of Principal.
- The results are displayed on the notice board after every internal examination. The answer books are also shown to the students on their demands for transparency in evaluation process.
- The institute scrutinizes the progress of the students through its internal evaluation system and attendance is strictly maintained by each department which is reflected in the internal evaluation.
- As per the GU guidelines, 75% attendance is mandatory for appearing in final examination. So, the students with poor attendance are not allowed to attend the university exams and their parents are briefed about their performance.
- Those students who performed best in university examination are duly honoured and awarded during the annual function. This is a moment of inspiration for the students to take up studies seriously.
- Weightage is also given on the behavioral aspects like attendance, regularity and punctuality in work, team work during practical session, class room

interaction, etc.; communication skills like presentations in seminars and report writing; and independent learning like assignments, do it-yourself exercises, etc.

2.5.6 What are the graduates' attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

Graduates Attributes Specified by the College: Our institutes offer the basic science courses. Students are expected to have a strong understanding of the course components by which they can pursue their further studies in future. Moreover, after graduation they are expected to have following attributes -

- Conceptual and up-to-date knowledge in the subject
- Scientific Temperament: Scientific attitude and practical orientation
- Strive for further higher studies
- Intellectual capabilities: Creative, Critical thinking and reasoning capabilities
- Ability to apply knowledge
- Self-confidence
- Self-empowerment and independent
- Character Building: Human values, moral values & ethical values
- Environmental awareness & sensitization
- Communication skills
- Technology savvy
- Sensitization for social responsibilities
- Capacity to cope up with the unknown problems
- All-round personality

Efforts by the College for the Attainment of Attributes:

- Conceptual and up-to-date knowledge of the subject is provided by the lectures and co-curricular activities.
- Scientific attitude and temperament is developed by providing practical sessions and hands on experience in laboratory work.
- In order to inculcate a good communication skill, many extra-curricular activities are carried out. Moreover, facility of Language Laboratory is also provided.
- In order to build self-confidence and self-empowerment, college conducts activities of Career Counseling and Placement Cell. Recently, college has started career oriented special morning classes for the students to prepare them for competitive examinations.
- Development of values likes human values, ethical values, cultural values; sensitization towards social responsibilities and environment are facilitated by special talks / expert lectures.
- Recently, Dr. Vijay Goel, Union Sports Minister visited our college to felicitate students.

2.5.7 What are the mechanism for redressal of grievances with reference to evaluation both at the college and University level?

- Examination committee, Grievance Redressal Committee, Internal Marks Committee and HoD of the respective department look into the examination grievances. Students can apply for re-verification and re-evaluation of their

internal marks. Accordingly, committees look into mater and resolve the grievance.

- As far as the University results are concerned, students if not satisfied with their marks, can apply to the controller of exams for the reassessment within 15 days of declaration of result. The University appoints a neutral panel of examiners for reassessing the answer sheet and resolves such issues.

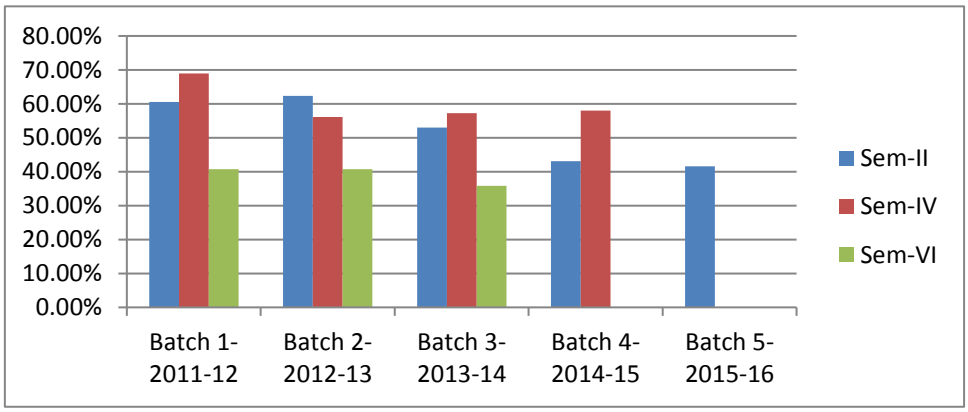
2.6 Students performance and learning outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

- Yes, the College has defined learning outcomes as mentioned in graduate attributes in section 2.5.6, which are clearly stated in the mission and vision of college. The vision and mission are mentioned on college website.
- The main focus of our college is to create an environment for the all-round capacity building of the students in all spheres of academia as the learning outcomes, which not only includes internal as well as university results but also their all-round development in the fields ranging from sports to cultural activities.
- The main purpose of our college is to focus on the teaching-learning process which can bring the desired learning achievements and learning out comes. Faculty members take enough care to enhance learning abilities of our students.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

Communication and performance of the students are result-based which is conveyed by displaying it on college notice board.



Year wise result of same batch.

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

- The vision, mission and graduate attributes are identified by the college and desired learning outcomes determine the teaching, learning and assessment strategies of the institution.

- In order to achieve the desired learning outcomes, strategies of the institution for teaching, learning and assessment are designed and executed in following stages in the close monitoring by the head of the institute.
  - Preparation of College Academic Calendar in accordance of Gujarat University Calendar by IQAC, HoDs, Chairpersons of different committee
  - Preparation of academic planning by each department in accordance of college academic calendar by respective HoDs.
  - Preparation of Academic Course Planning by Individual Faculty.
  - Implementation of academic course planning by actual classroom teaching-learning process, practical work in laboratories.
  - Implementation of all the co-curricular, extra-curricular activities (*Saptadhara* activities), career oriented activities, and extension activities.
  - Implementation of internal and external evaluation processes.
  - Providing continuous mentoring, encouragement and guidance by faculties
  - Carry out necessary follow up on the basis of feedback and results
- Teaching, learning and assessment strategies of the institution are structured on the basis of the students' performance and achievements in the internal as well as external results.
- As ours is the under graduate science college, the key aspect of our college is to impart the study of basic sciences by means of classroom teaching-learning process along with practical sessions in laboratories. Moreover, students are also encouraged to participate in various co-curricular and extra-curricular activities to achieve desirable learning outcomes.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

The institution has adopted a policy to focus on the holistic development of the students which equip them for future challenges in the world outside.

Extension Activities:

- The extension activities of NSS and NCC help in generating awareness about social issues and problems.
- Our institute has adopted a village where NSS students and few faculty members go there and stay for a week in the village. The students interact with the people by personally visiting every resident of the adopted village for bringing awareness regarding AIDS, cleanliness, necessity of primary education for their kids, eradicate smoking and drinking habits. In this way NSS students get connected to the society.
- Our institute has a practice of donating educational kits to the students of municipal primary schools from the income generated from the celebration of canteen day in the college by the students. In this way students are connecting for noble cause of the society.
- **Garden School:**
  Our NSS students also conduct informal garden school to teach the poor children staying in the slum areas that are weak at Science & Mathematics and thus contribute their knowledge to the society.

Institutional & Industrial Visits: Visit to EDI (Entrepreneurship Development Institute), IFFCO, FSL, FCIPT, IPR and other educational study tours are arranged for the students by the institute to provide exposure and motivate them for research aptitude.

Career Counseling & Classes for Competitive Exams:

- Faculty members provide information and guidance regarding the available career options / scopes in each of the subjects.
- In order to inculcate self-confidence and motivate for self-empowerment, college conducts activities related to career counseling.
- General knowledge tests are conducted by the placement cell of this college. Successful candidates are encouraged and provided one year free subscription of "Gujarat Rojgar Samachar". On the basis of result, College has also started career oriented special morning classes for competitive examinations. College invites renowned experts of various fields to guide students.
- Faculties also provide guidance of Government of Gujarat's web portal "Online Job Application System" (OJAS) and encourage them to apply through OJAS.
- There is nothing like regular placement but as and when the companies contact the college about the placement of the students the college provides them the list of successful graduate candidates and its contact details for placement.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

- The college analyses data on student performance through internal as well as external results, regularity, classroom performance, performance in practicals, assignments, quiz, viva, students' seminars etc.
- Based on the result analysis, advance learners as well as slow learners are identified and treat them accordingly for their better performance.

  Following activities are undertaken by the institute for overcoming barriers of learning:
  - Students' problems like learning capabilities, poor background knowledge of the subject, lack of confidence, health problems, financial needs, etc. are identified; necessary corrective measures are chalked out and implemented by respective department. If necessary, students and their parents are counseled for better learning outcomes.
  - Extra classes and practical sessions are conducted.
  - Peer learning is also encouraged.
  - Relevant study materials are provided.
  - Examination oriented guidance is provided.
  - Slow learners are assigned to solve last 3 years' university question papers by open book method in the presence of faculties.
  - Student centric teaching and learning measures are adopted to ensure optimum learning outcomes.
  - Remedial Classes: Recently, college has also started to conduct remedial classes for the slow learners having poor performance in continuous internal assessment as well as external examination. Faculty member covers the hard spot of learning in the remedial classes and also solves students' content related problems.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

- Healthy student-teacher relationship and continuous mentoring provide foundation for ensuring achievements of learning outcomes.
- Principal along with IQAC and HoDs not only monitor the implementation of academic calendar, course plans, teaching – learning activities, internal assessment activities, co-curricular activities, and extra-curricular activities but also guide for effective implementation of the plans and activities.
- Monitoring of students is carried out by continuous comprehensive evaluation by faculty members and reviews the learning outcomes in departmental staff meetings.
- The true barometer of learning outcome is measured by the internal as well as final results at the end of their course.
- Many students of our college get the admission in the institutes of repute in different parts of the state and country. Some of the students of the college went abroad for higher studies. This is also reflected by the Alumni association of the institute which is has many members who have gained prominence in the different walks of life.

2.6.7 Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

- Yes, the institution and individual teachers use evaluation outcomes as an indicator for evaluating student performance of learning objectives and planning.
- On the basis of students' assessment / evaluation, some of the faculty members have transformed their teaching-learning strategies as per the need and standard of the students. Some of the faculty members always use ICT in day to day teaching learning process, which enhance the understanding of the subject and consequently better results are obtained.

CRITERION- III

RESEARCH, CONSULTANCY AND EXTENSION

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1. Promotion of Research

3.1.1. ***Does the institution have recognized research center/s of the affiliating University or any other agency/organization?***

No, the institution is not recognized as research centre of the affiliating university or any other agency/ organization.

3.1.2. ***Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.***

No, there is no separate research committee as such but we have an academic committee which also takes care about organizing research seminars, workshops and conferences at our institute. But, at our institute almost 71.1% faculty members are Ph.D. holders and they regularly share their research knowledge and also encourage to complete the doctorate work who are pursuing Ph.D. They also encourage those faculty members for pursing doctorate work who are not engaged in any type of research activities. In this way research atmosphere is created in the institute.

3.1.3 ***The measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects.***

Autonomy to the principal investigator

At present, there is no ongoing research project at this institution. But if the research grants are sanctioned for the projects by research agencies then institute would avail full autonomy to the principal investigator in future.

Timely availability or release of resources

Yes, the institute will release resources within the time.

Adequate infrastructure and human resources

As the institution is an undergraduate college of government of Gujarat, it does not have outstanding infrastructure facilities as far as research is concerned, but it has preliminary facility for research in different departments. Every department have been provided computer with internet facility, printer and LCD projectors. Wi-Fi facility is also available on the campus.

Time-off, reduced teaching load, special leave etc. to teachers

The faculty members who are presenting their research papers/posters in International/ National/ State level seminar/conference/workshop are supported with duty leaves.

Support in terms of technology and information needs

In terms of technology and information needs, the college provides library facility, access to E-books & E-journals through INFLIBNET, computers with internet facility to each and every department and Wi-Fi facility to all faculty members.

Facilitate timely auditing and submission of utilization certificate to the funding authorities-:

Yes, Institute facilitated the timely auditing and submission of utilization certificate for already completed projects.

3.1.4 ***What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?***

- Institute arranges Expert's lectures, industrial visits, study tours and visit to higher learning institute regularly for the students for developing the scientific temper amongst the students.
- To develop scientific temper and research culture and aptitude among students, institution organized "Science exhibition" on (19-20 March 2015).
- Department of chemistry organized a 'hands-on' workshop on "current trends in chemical sciences" (on 13-14 March 2016) jointly with ISTAR, Vallabh Vidyanagar.

3.1.5 ***Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)***

Institute promotes the quality research by the faculty members. Five faculty members of the institute have been recognized as Ph.D. Guide from various universities like; Gujarat University - Ahmedabad; Saurashtra University- Rajkot, Shri JJT University- Rajasthan and Pacific University- Rajasthan.

Details of faculty members who have guided Ph.D. students:

S. No.	Name of faculty member	Subject and name of the university recognised as research guide	Research Area	Number of students registered for Ph. D./others	Number of students awarded Ph.D.
1	Dr. K. G. Chhaya	Physics. Pacific University, Udaipur	Nuclear Physics	Nil	Nil
2	Dr. Y. S. Patel	Chemistry, Gujarat University, Ahmedabad	Heterocyclic Chemistry, Organic Polymers	One	
3	Dr. K. S. Nimavat	Chemistry 1. Shri JJT University, Jhunjhunu, Rajasthan and 2. Pacific University, Udaipur Rajasthan	Heterocyclic Chemistry, Organic, Inorganic and Analytical Chemistry	Four	Six
4	Dr. Jignasha T. Thumar	Microbiology and Biotechnology, Saurashtra University, Rajkot	Extremophiles, Bioactive metabolites, Fungal diseases in plants	Two	One
5.	Dr. Dipti H. Mehta	English, Shri JJT University, Jhunjhunu, Rajasthan	Literature and Language	Two	Two

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

- "Hands-on" workshop on current trends in chemical sciences was organized at this institution on 13-14 March 2016 jointly with ISTAR, Vallabh Vidyanagar.

Sr. No.	Workshop	Number of Resource persons	Organising Department	Funding agency	Date
1.	"Hands-On" Workshop on Current trends in Chemical Sciences	05	Department Chemistry jointly with ISTAR, Vidhyanagar	Institute itself	13-14 March 2016

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Sr. No	Name of the faculty	Research expertise
1	Dr. K. G. Chhaya	Nuclear Physics
2	Dr. Y. S. Patel	Metal complexes, polymers, heterocyclic chemistry, environmental chemistry
3	Dr. K. S. Nimavat	Heterocyclic Chemistry, Organic, Inorganic and Analytical Chemistry
4	Dr. JignashaThumar	Marine actinomycetes, phytoplankton and their metabolites
5	Dr. Dipti H. Mehta	The poetic and the dramatic qualities in Indian films: Literacy perspective

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

When any of the researchers of eminence visit Gandhinagar or Ahmedabad, our first rank students are informed by the department and introduced with the speaker and his/her work. Recently, Nobel laureates visited the city during Vibrant Gujarat 2017, 8th global summit, where our students participated actively in the Q & A session.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

Till date no faculty member has applied for Sabbatical leave for research activities.

3.1.10. Details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community.

Institution insists faculties to organize/ participate and present their research in seminars/ conferences/ symposium and publish their work nationally and internationally for creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community. Faculty members also share their experience with the students and staff by presenting their work after attending the seminars/ conferences/ symposium. They also brief the students regarding the work presented by other researchers in the same event. By doing so, they get the students idea about the current scenario of research in their subject.

3.2 Resource Mobilization for Research

***3.2.1 What percentage of the total budget is earmarked for research?* Give details of major heads of expenditure, financial allocation and actual utilization.**

- There is no provision for research funding in the budget of Education department, Government of Gujarat. The only source for research funding is UGC and other research agencies like DST, GSBTM etc.
- Separate grants are not provided to the faculties for research. Researcher has to submit the research proposal to any of the fund giving agency which decides the merits and objectives of the schemes.

3.2.2. Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

No, the Institute doesn't have the provision of seed money to faculty members for research.

3.2.3. What are the financial provisions made available to support student research projects by students?

There is not a separate financial provision for undergraduate students for research activity.

3.2.4. How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavours and challenges faced in organizing interdisciplinary research.

- A formal interdisciplinary research is not being pursued by the faculty members; however, a positive interaction in terms of advice and knowledge sharing occurs on regular basis among the departments.
- One of the faculty members has done work on Tribology which has an interdisciplinary study of Physics and Mathematics.

3.2.5. How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- Faculty members of each department can use the laboratory facilities including equipment, glass wares and chemicals for their basic research activities. The institute also provides free internet Wi-Fi facilities and also the facility of INFLIBNET is available for all faculty members.
- They are also encouraged to apply for research projects with necessary details about the announcement dates and project writing.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.

No, the institution has not yet received any such type of grant.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

The institution doesn't have any ongoing research project.

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

The institute is planning to start Post graduate programmes in the subjects that are offered at Undergraduate level and to establish a central lab with basic research facilities.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the need of researchers especially in the new and emerging areas of research?

The institute is looking for initiating various Master-level courses which would definitely improve the parallel research activities. The institute would make collaborative research with various renowned research institutes to upgrade the level of research and researcher.

3.3.3. Has the institution received any special grants for finance from the industry or other beneficiary agency for developing research facility? If yes, what are the instruments/ facilities created during last four years?

No, institute has not yet received any such type of grant.

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/ other research laboratories?

The institute has not developed these kinds of facilities for the students outside the campus.

3.3.5. Provide the detail on the library/ information resource center or any other facility available specifically for the researchers?

N-list Program, launched by INFLIBNET (N-List), Gandhinagar, Gujarat is successfully running in college through which students can access more than 6000 scientific journals for their reference. In addition, several peer reviewed scientific journals are regularly available at college for direct referencing.

3.3.6 What are the collaborative researches facilities developed/ created by research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

The collaborative research facilities have not been developed in the institute.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of Patents obtained and filed (process and product)

- Obtained: 0 Filed: 0
- Original research contributing to product improvement: NIL
- Research studies or surveys benefiting the community or improving the services: NIL
- Research inputs contributing to new initiatives and social development: NIL

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

No, the institute doesn't publish any research journal. However, a few faculty members are on the editorial boards of the journals of international and national repute. Some of them are also invited to review the research papers for international refereed journals.

3.4.3 Give details of publications by the faculty and students:

The details given below are for last four years from 2012-2016.

- Publication per faculty: 04
- Number of papers published by faculty and students in peer reviewed journals (national / international): 166
- Number of publications listed in International Database (for E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): 124
- Monographs: 01
- Chapter in Books: 02
- Books Edited: 00
- Books with ISBN/ISSN numbers with details of publishers: 46
- Citation Index
- SNIP
- SJR
- Impact factor: Range: 0-4.82
- h-index: Range: 0-9 (as per Google scholar)

Figure: Papers published by various departments of the institute in last four years

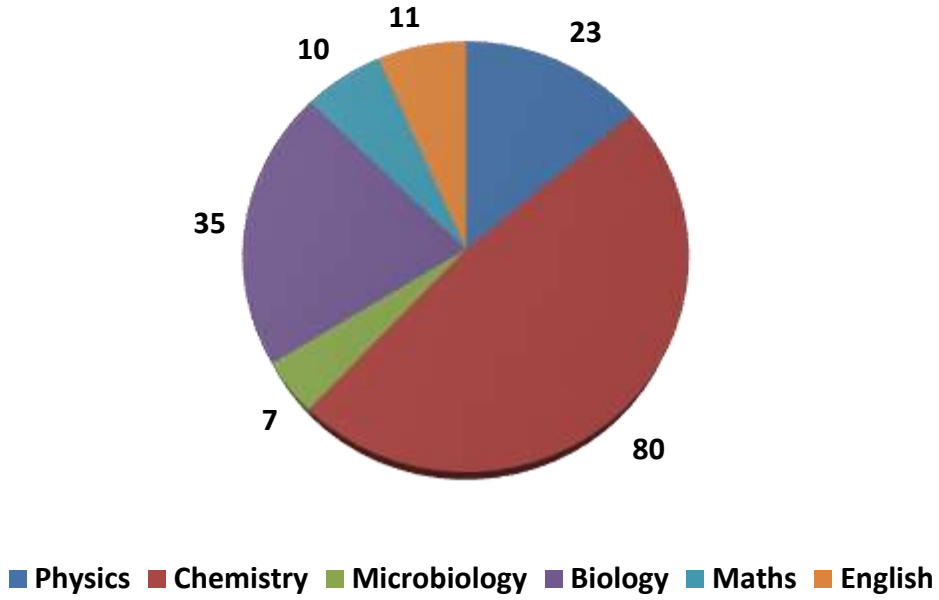
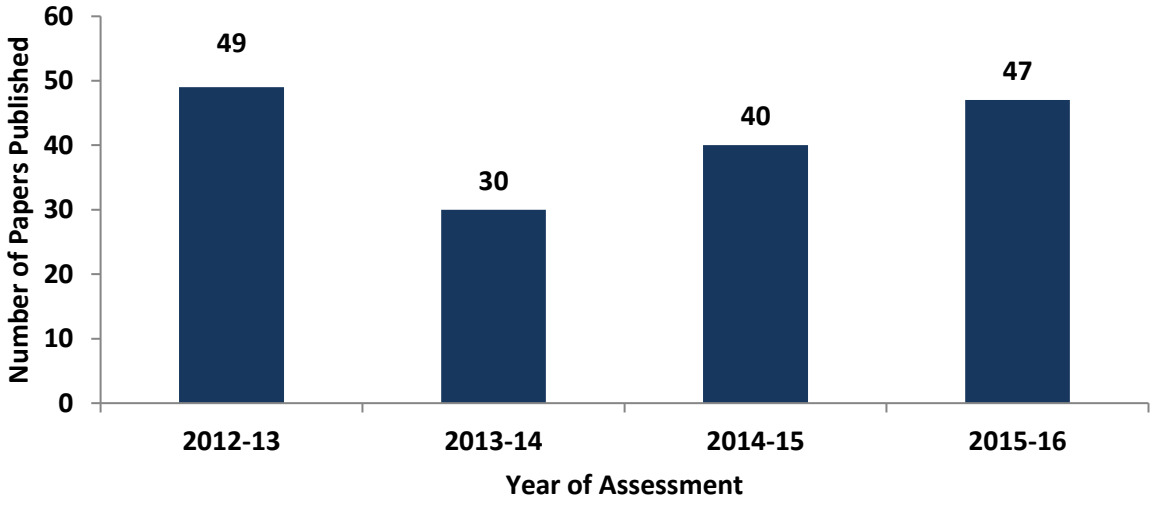


Figure: Number of research papers published in last four years



3.4.4 Provide details (if any) of

Research awards received by the faculty

Dr. Y. S. Patel of Chemistry department received an award on teacher fellowship under FIP during XIth plan by UGC with vide letter no. F. 39-02/11(WRO) dated 25/07/2012.

Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally:

NIL

Incentives given to faculty for receiving state, national and international recognitions for research contributions.

- Faculty members are felicitated in the annual function of the college. Their achievements are also appreciated by displaying them on notice board and publicizing in local newspapers.

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

To increase knowledge of the students regarding recent advances, emerging trends and development in the industries

- Institute conducts industrial visits.
- Organize "Hands-On" workshop for students.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

The expertise of faculty members of the institute is advocated and publicized by displaying it on the web site of the college.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

- The faculty members have total autonomy to use their expertise and indulge in consultancy services.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

- Though revenue based consultancies are not provided, the departments of the institute are involved in many activities like this purely on the basis of GOOD WILL. As an example, Department of Microbiology provides fungal and bacterial cultures to other colleges as and when required purely on GOOD WILL.
  - Department of chemistry supported the students of Indian Institute of Teacher Education (IITE), Gandhinagar by providing laboratory facility.
  - Dr. K. G. Chhaya- head of the institution is consultant at Government Science College, Chikhali.
  - Dr. D. A. Odedra and Dr. S.H. Gor of Botany department are members of the district environment appraisal committee.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

No, such income is generated through consultancy.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood- community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

- By means of agencies like NSS, NCC and Red Cross and "Seva Samuday Dhara" (Saptdhara by Knowledge Consortium of Gujarat) students are engaged in various social service training programmes which bring about a sense of social responsibility and sustained social development.

- The students are also sensitized on the issues of Institution-neighbourhood-community by planning and execution of various extension activities through SRC. Through participation in inter college cultural activity and youth fest, they interact with other youth and develop completely.
- N.S.S. students of the institute are giving free group coaching to the poor students of standard 1 to 7 at Sector -1 (Gandhinagar) Garden in morning from 7:30 a.m. to 9:30 am since last one and half years.
- NSS unit of the institute motivates the society on the issues like "Awareness of Cleanliness" and "Drawback of Addictions" by playing Street shows and dramas, by rallies and by displaying posters in nearby villages during their camp. They also generated awareness on the issues like "Beti Bachavo" and "Awareness about voting in elections".
- Institute celebrates "ozone day", "World environment day", women's day, "AIDS day" etc. for the awareness of students towards the environment and society.
- Institute organized a blood donation camp on with the help of NGO and collected sizable bottles of blood.
- Department of biology has established a Nature club for students in the college. Through which we disseminate knowledge about Biodiversity, Environmental issues, depletion of the biological resources and to conserve biodiversity, also create awareness for conserving natural heritage of the Gujarat state.
- Annual NSS camp is always organized in the village. Every year college NSS unit selects a village and NSS students stay there for 7 days where they organize various awareness programmes and construction work with the cooperation of Gram Panchayat. Institute adopted a nearby village Gopkulpura (2013-14) where, the primary school students were provided with the basic education kits.

- Working with rural and weaker community provided our students a feeling of self-satisfaction and attachment with the people belonging to villages. These activities develop a habit in our college students for working with those communities which demand help and attention.
- Apart from NCC and NSS students, the other students of the college participated in different activities which include "Tree plantation", "Cycle rally", participation in "Run for Unity" and "International Yoga day". Students also cleaned the campus under "Seva Samuday Dhara"- Saptadhara.
- These activities aim to provide quality based education and knowledge to the students by inculcating their moral values, scientific temper and employing state of art technologies.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?

- At the time of admission counselling, our NCC and NSS officers describe merits of the social services to the students. Institute also arranges an orientation programme for 1st year students every year, where they are explained their duties for the future building and social services. Interested students join NSS and NCC and they are guided and supported by programme officer.
- The volunteers of NSS unit and NCC are also encouraged and through certificates. As a mark of encouragement, their performance in social work is appreciated through awards and trophy at the annual day of the college.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

- The Institution always solicits the stakeholders including students.
- Principal interacts with the students without prior appointment during working hours.

- The class representative, GS and the SRC members are free to share their choice/demands on various extra-curricular activities at the institute.
- The faculty members, HOD and principal are well communicated about the requirements or problems of the students, if any.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

Every year, SRC committee plans various student activities. Canteen day is one of the activities wherein students arrange food stalls in the campus itself. The staff members and students of the college participate in this event and the revenue generated by this activity is donated in various social activities.

Canteen Day celebration

Social activities- year wise

Year	Amount generated as the profit (Rs.) from Canteen day	Donated for….
2012 – 13	11,000/-	Treatment of HIV infected children
2013-14	23,000/-	Study Kit to the students of 7th- 8th standard at 1. Government Primary School Sector 15, Gandhinagar 2. Government Primary School Sector 28/1, Gandhinagar 3. Adivada Primary School 4. Government Primary School Sector 29, Gandhinagar
2015-16	33,370/-	Study Kit to the needy students

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

- The Institution leads in promoting the participation of the students and faculty in the extension activities through NSS and NCC and also commits development activities.
- The College has one successful NSS unit comprising of 100 volunteers. The NSS officer plans the programme for the year with a committee and executes it. The NSS volunteers are awarded with certificates of Appreciation and awards during the annual day celebration.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

Institute always help the students from under-privileged and vulnerable section of society by making them aware with governmental financial aids such as different types of scholarships. Institute library has made arrangement for separate cupboard for books from grant of equal opportunity.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

Through participation in the extension activities pursued at the institute, students learn lesson of social responsibility. As far as academic learning of students is concerned, by teaching the poor students of primary class, their fundamental knowledge gets strengthen.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

- NSS students of the institute made survey in nearby slum area regarding the primary education in the children. They interacted and motivated them by

explaining the importance of education. They also started to give them free group coaching in the garden located nearby (Sector-1, Gandhinagar) in morning hours.

- Students are also involved in environmental awareness campaigns that help to develop a concern for the environment.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- Extension activities conducted by the institution always imbibe academic learning experience, values and skills not only in students but also in faculty members.
- During 2014-15, institute organized science exhibition for the U.G. and P. G. students in which students and faculty members from different institute participated and won the prizes.
- The faculty members have a working relationship with the other institutes. To sight an example, the faculty members of physics department offered their service as the committee members in the organisation of IAPT national convention hosted by KSV University, Gandhinagar.
- DR. S. H. Gor, Assistant Professor, Department of Biology shared his expertise as a member of District Environment Appraisal Committee formed by collector of Gandhinagar city.
- Department of chemistry allowed the students of SEM-I from Indian Institute of Teacher Education (IITE), Gandhinagar to perform practicals of chemistry subject in laboratory of chemistry department of the institute during December, 2012. Also, their practical examinations were conducted in laboratory of department of chemistry.
- Many faculty members of the institute, under the order of Department of Higher education, Government of Gujarat, extended their academic expertise in the development of other government colleges on deputation basis.

Outreach activities by the students in last four years

Year	Activity
2012 – 13	Students earn Rs. 11,000/- by organizing canteen day and this amount was donated to the HIV^+ Children who are getting treatment in Hospital in sector 19.
2013-14	Students earn Rs. 23,000/- by organizing canteen day and this amount was donated to the government school students of the std. 7th and 8th for the purchase of education kit
2014-15	Four NSS students has took part in the Blood Donation Camp Organized by H.D.F.C bank at R. D. Shah Arts and Smt. V.D. Shah Commerce College, Dolka
2015-16	N.S.S. students are giving free group coaching to the Poor Students of standard 1 to 7 at Sector -1 Garden in morning 7:30 a.m. to 9:30 am

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

The institute have so far not received any award for the extension activities; but our extension activities are well received and appreciated by common public as well as reputed persons.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

- Institution is taking constructive efforts for collaboration with various agencies for academic, extension, research, placement, and resource mobilization.
- Institute had one official collaborative project with Gujarat Biodiversity Board, Gandhinagar. In addition, though the institute doesn't have any formal collaboration, faculty members are active in collaborative research with the institutes of repute as detailed below. The output of this collaboration is also evidenced by facilitating publications in Journals and in transformation of the findings to the societal benefit. This collaboration has paved way for enhancement and improvement in the quality of research. However, Institute is yet to make effective inroads into collaborative research, sharing facilities and equipment.

Beneficiary Department	Name of the institute in collaborative research	Purpose of collaboration
Botany	Gujarat Biodiversity Board, Gandhinagar	Preparation of Biodiversity Management Committee and Public Biodiversity Register in Selected Panchayat of Dehgam Taluka of Gandhinagar District
Microbiology	Directorate of Ground nut research, Junagadh, Gujarat Gujarat State Biotechnology Mission, Jamnagar, Gujarat	Research
Chemistry	-Department of Chemistry, Saurashtra University, Rajkot, Gujarat -Department of Chemistry, Gujarat University, Ahmedabad, Gujarat -Department of Chemistry, Shri. JJT University, Rajasthan - Department of Chemistry, Pacific University, Udaipur Rajasthan	Research
Physics	Department of Physics, Saurashtra University, Rajkot, Gujarat	Research

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

- Institute is having a MoU with Prefer Corporate Services Pvt. Ltd., Ahmedabad under industry-academic interaction programme. It aims at the collaboration to share and exchange the information for mutual benefit and knowledge enhancement. In addition, it encourages the joint projects, student's internships and employment, research participation and collaboration, skill development activities and subject up gradation workshops using the facilities at the institute.
- Institute had a MoU with Gujarat Biodiversity Board, Gandhinagar for preparation of "a Biodiversity Management Committee and Public Biodiversity Register in Selected Panchayat of Dehgam Taluka of Gandhinagar District" from February-2014 to March-2015 (Amount Mobilized: Rs. 3,30,000).

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.

DELL Technologies contributed in establishment of language laboratory at the institute.

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

- Shri Chintan Bhatt ,Retd. Scientist, SAC ISRO visited the institute on National Science day (29 February, 2016) and delivered his talk on the theme of "Make in India: Science & Technology driven innovation".
- Dr. Rajmal Jain, Dean of Science Faculty, KSV, Gandhinagar, Ex Scientist of PRL visited our institute and shared his knowledge and views with faculties and students of the physics Department.
- Being an UG level institute with limited infrastructure, the institute has organized a state level Workshop on Current trends in Chemical Sciences during 13th to 14th March 2016.
- Department of Biology, Government Science College, Gandhinagar and Communication Division, The Forest Department, Government of Gujarat Institute jointly organized an Environmental Orientation/ Communication Training Programme from 29th to 30thDecember 2015.

3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements?

List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated -

- Curriculum development/enrichment - The experience, interaction and feedback from such research and extension activities help in identifying the new emerging and job oriented areas which help to include in the curriculum.
- Internship/ On-the-job training
- Summer placement
- Faculty exchange and professional development
- Research
- Consultancy
- Extension:

- Publication
- Student Placement
- Twinning programmes
- Introduction of new courses
- Student exchange
- Any other

The institute is an undergraduate college, which is under the direct control of Commisionerate of Higher education, Government of Gujarat. On behalf of the college, majority of the decision-making processes including MoUs, linkages and collaborations are taken up by KCG (Knowledge consortium of Gujarat) and Department of Education, Government of Gujarat.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.

Institute is taking effective effort in establishing linkages and collaboration with the industries.

CRITERION- IV

INFRASTRUCTUE AND LEARNING

4.1. Physical Facilities

4.1.1. ***What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?***

Being a government college, the Public Works Department (PWD) maintains the building of the college as and when the need arises.

Creation and Enhancement of infrastructure

The office of Commissioner of Higher Education invites the proposal for expansion and enhancement of infrastructure during the month of August every year from all government colleges. College has to send the proposal in concurrence with the PWD department. By keeping in view the necessity and urgency of the college, the Commissioner of Higher Education office scrutinizes the proposal after receiving proposals from government colleges. The scrutinized proposals are then forwarded by Commissioner Office to Education Department for provision in the budget. Once it has been sanctioned in the budget, the grants are disbursed directly to concerned PWD office. After receiving the grant, the PWD department in concern with the college work for enhancing and creating the infrastructure of the college.

Effective teaching and learning

College sends proposals for making provision in the budget for purchasing necessary furniture, equipment and computers. After getting grant, the head of the institution invite the list of required instruments and furniture from the head of all the departments. Thereafter, head of the institution and the purchase committee purchases required furniture and equipment for college as per government rules and purchase procedure.

4.1.2. ***Detail the facilities available for***

a) Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.

Curricular and co-curricular activities- classrooms

The college has almost all the basic physical facilities for academic activities, co-curricular activities and extra-curricular activities. Spread in an area of 49.19 acres, it has 11599.32 sq. m. total built up area. It has six well-ventilated and very spacious lecture rooms and three medium size class room.

Technology enabled learning spaces

- Our institution is having Wi-Fi facility and faculty member make use of this facility for updating their knowledge and in delivering the lecture.
- College has a well-furnished Principal's Office with computer having Internet facility and administrative office with computer facility. There is one ventilated and spacious lecture room and two laboratories which are mounted with LCD projectors and screen.
- For enabling all the students to have access to the lectures delivered by eminent academicians from across the state, nation and abroad and to facilitate virtual learning, college has one spacious room which provides above facilities to the students.
- Every department has staff room with computer and printer facility. In spite of having Wi-Fi facility, every room of head of the department has broad band

connection with computer and printer facility. Each department has LCD projector.

Seminar Hall

College has one spacious seminar hall with mounted LCD projector and screen.

Laboratories

Our college is having Two Physics laboratories, Three Chemistry laboratories and Three Biology laboratories, Two Microbiology laboratories which are well equipped having latest apparatus.

Botanical Garden

The college has a Botanical garden with varied plant species.

Animal House

No

Specialized facilities and equipment for teaching learning etc.

- Apart from the above facilities college has 48 desktops and 5 laptops and 10 numbers of printers.
- We have Digital English Language Laboratory (DELL) at out institute which is equipped with 25 computers servers connected with one master computer. Those students who opt for SCOPE examination are trained in DELL laboratory.

b) Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

Sports: outdoor and indoor games, gymnasium

- The institute shares a common ground among three government colleges, which is used for various outdoor games cricket, football, hockey etc.
- There is also a volleyball ground in our campus.
- For indoor games college has a sports room where in students plays games like table tennis, chess, carom etc.

NSS:

College has NSS room with computer and printer facility. NSS activities for the whole year are organized by NSS programme officers with students.

NCC:

The activities of NCC are coordinated by the NCC officer. There is a separate room for NCC which has the facility of computer and printer.

Cultural activities, Public speaking, communication skills development, yoga:

- College has one Auditorium with Wi-Fi facility, computer and LCD projector. Various cultural activities and competitions are organized in this auditorium.
- We have Digital English Language Laboratory (DELL) at out institute which is equipped with 25 computers servers connected with one master computer. Those students who opt for SCOPE examination are trained in DELL laboratory. DELL laboratory has been developed with the aim to improve communication skills of students.

Health and Hygiene:

The institute has cleaning staffs which takes care of cleanliness of the campus. Dustbins are kept at various places to manage the waste properly. The institute has collaborated with Gandhinagar Municipal Corporation to put in place the system of waste management.

4.1.3. ***How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).***

Our institute always tries to make an optimal usage of infrastructure in order to meet the needs of academic and non-academic activities. Same laboratories are used for both by second and third year students for practical purpose. In morning second year students are performing practical then in the same laboratory in afternoon third year students performs their practical in laboratory. As the seminar hall and auditorium have facilities of LCD projectors and Wi-Fi facility they are also used for delivering lectures by faculty members by making use of power point presentation. Institute also provide its infrastructural facilities for conducting various recruitment examinations like UPSC, GPSC, Gujarat GaunSeva, etc. to government agencies regularly during holidays. In this way institute makes optimal use of its infrastructure. As there is a common play ground between three government colleges so it is also used optimally by the students of all the three colleges.

Master Plan of both, the existing physical infrastructure as well as the physical infrastructure of New Building is enclosed in the Appendix-1 and the details of which are given below:

Details of Existing Physical Infrastructure:

Sr. No	Room No.	Details	Dimension sq.m.	Area sq.m.
1	01	Principal's Chamber	4.85x5.85	28.3725
2	02	Office	11.57x6.85	79.2545
3	----	Staff Toilet	3.18x2.55	8.109
4	----	Office Store Room	3.18x5.85	18.603
5	03	Mathematics Department Staff Room	4.80x6.20	29.76
6	04	Microbiology Department Staff Room	4.80x6.20	29.76
7	----	Gents Toilet	3.60x5.30	19.08
8	05	Biology Department Staff Room	4.80x4.50	21.6
9	06	Biology Laboratory -1	9.80x17.80	174.44
10	6A	Biology Department Staff Room	2.60x5.80	15.08
11	07	Lecture Room	21.20x8.35	177.02
12	08	Lecture Room	21.20x8.35	177.02

13	09	Biology Laboratory-2	4.80x8.55	41.04
14	9A	Microbiology Laboratory-1	9.80x5.80	56.84
15	9B	Microbiology Laboratory-2	9.80x5.80	56.84
16	10	N.C.C. Office	4.80x5.50	26.40
17	----	Gents Toilet	5.60x4.90	27.44
18	11	Computer Laboratory - 1	9.80x5.80	56.84
19	12	Ladies Rest Room	8.15x5.80	47.27
20	----	Ladies Toilet	7.45x2.80	20.86
21	13	Sports Room	8.15x5.80	47.27
22	13A	Electric Room	4.85x2.80	13.58
23	14	Mathematics Computer Laboratory-2	4.80x5.80	27.84
24	15	Microbiology Store Room	4.90x2.85	13.965
25	16	Botany Lecture Room	4.80x5.00	24.00
26	17	Chemistry Laboratory-1	9.80x17.55	171.99
27	17A	Chemistry Store Room-1	9.80x5.80	56.84
28	18	Chemistry Store -2	9.70x5.80	56.26
29	19	Chemistry Store-3	4.80x5.80	27.84
30	20	Chemistry Department Staff Room	4.80x5.80	27.84
31	21	Chemistry Department Staff Room	4.80x5.80	27.84
32	22	Chemistry Department Staff Room	4.80x5.50	26.40
33	23	Chemistry Laboratory-2	9.80x17.55	171.99
34	23A	Chemistry Laboratory-3	9.80x5.80	56.84
35	-----	Ladies Toilet	2.80x2.80	7.84
36	-----	Gents Toilet	4.80x5.00	24.00
37	24	Lecture Room	21.20x8.35	177.02
38	25	Lecture Room	21.20x8.35	177.02
39	26	Lecture Room	21.20x8.35	177.02

40	27	Lecture Room	21.20x8.35	177.02
41	28	Physics Laboratory-2	9.80x1.43	14.014
42	28A	Office Store Room	9.80x5.80	56.84
43	29	English department Staff Room	4.80x5.50	26.4
44	30	Lecture Room	4.80x6.20	29.76
45	31	Physics Department Staff Room	4.80x6.20	29.76
46	32	Physics Department Staff Room	4.80x6.20	29.76
47	33	Mathematics Lecture Room	7.30x6.20	45.26
48	34	Physics Laboratory-1	9.80x9.00	88.20
49	34A	Lecture Room	9.80x5.80	56.84
50	36	Lecture Room	4.80x5.60	26.88
51		Lecture Room	15.00x6.40	96.00
52	-----	Gents Toilet	4.80x5.00	24.00
53	-----	Ladies Toilet	2.80x2.50	7.00

Details of Physical Infrastructure of New Building:

Sr. No	Room No.	Details	Dimension sq.m	Area sq.m
1	37	Laboratory	20x20	400
2	38	Laboratory	20x20	400
3	39	Laboratory	20x20	400
4	40	Conference Hall	12.75x11	140.25
5	41	Lecture Room	12.75x11	140.25
6	42	Laboratory	20x20	400
7	43	Auditorium	20x20	400
8	44	Library (Ground Floor)	20x20	400
		Library Reading Room (First Floor)	20x20	400

4.1.4. ***How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?***

The college has facility of ramp for the students with physical disabilities. During examination, their seating arrangement are made on the ground floor.

4.1.5. ***Give details on the residential facility and various provisions available within them:***

Hostel Facility – Accommodation available

The boy's hostel is situated at the distance within one kilometer from the college. There are 33 rooms, with intake capacity of 100 students. The admission in the hostel is given on merit basis. The hostel has 24-hour water supply and a water cooler. It also has a Dining area along with a kitchen facility.

Recreational facility-gymnasium, yoga centre, etc.

The playground is in front of the hostel, which provides recreational facility for hostel students.

Computer facility including access to internet in hostel

There is no computer facility but as the city is Wi-Fi so students may use it.

Facilities for medical emergencies

The facility of health care centre at hostel is not available but in case of emergency the institute utilizes the Primary Health Centre of Sector-16 which is just a kilometre away and a civil hospital of Gandhinagar which is just 3 kilometers far from college and hostel.

Library facility in the hostels

There is no library facility at hostel. But the hostel rector takes the liability of the hostel students for those who want to have an access to central library of Sector-17, Gandhinagar.

Internet and Wi-Fi facility

The institute provides internet and Wi-Fi facility 24×7 hours.

Recreational facility-common room with audio visual equipment:

No.

Available residential facility for the staff and occupancy Constant supply of safe drinking water

The institute does have residential facility for rector and the staff. The class III and IV employees are provided with quarters near the campus. The residential facilities for teaching facilities are available under the "Capital project" by government of Gujarat. These quarters are allotted as per the pay scale of the employee.

Security

Security staffs are made available at college and hostel for 24 hours who takes care of college building, campus and hostel.

4.1.6. ***What are the provisions made available to students and staff in terms of health care on the campus and off the campus?***

- As per university rule, every student at the entry level of the college has to undergo health check-up at college. College arranges such medical check-ups at college by inviting the recognized doctor of government and the medical report given by the doctor is sent to university.
- Thalassemia check-up is also carried out at our institute.

- Institute also arranges blood donation camp in association with Red cross society, where free health check-up, haemoglobin, Blood pressure, Serum Sugar etc. are examined.
- The college maintains first aid kit which is made available whenever need arises.
- Primary Health care centre situated in sector-16 which is one kilometer away and civil hospital which is located is about 3 km away from the college campus are used by the students and staff members in case of emergency.

4.1.7. ***Give details of the Common Facilities available on the campus–spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.***

IQAC:

The college has established IQAC cell and has a separate room for it.

Grievance Redressal unit:

In striving for excellence, our institute encourages the students/visitors/faculty members to voice their opinion in a common suggestion box which is placed in front of the Administrative office.

Women's Cell:

College has CWDC cell. Students are encouraged to discuss their problem with the CWDC members and in case of emergency they are free to meet the board members at any time. Various activities are planned and worked out by the members of CWDC cell.

Counselling and Career Guidance:

The students are counselled at the placement cell. Also, lectures regarding career guidance are arranged for the students by this cell. The information regarding the recruitment where the eligible criteria if of 12th standard pass and graduation are displayed on the notice board.

Placement Unit:

Placement unit under the name of UDISHA club has been established by out institute. They provide information to the students regarding recruitment by placing them on the notice board. Whenever company approaches us for job vacancies our college provides the name of the successful candidate's name and email address and their contact details to the company. This cell also conducts the general knowledge test which is helpful for those students who are going to appear for various recruitment examinations.

Health Centre:

The institute does not have a health center. In case of major emergency, institute utilizes the Primary Health Centre of sector-16 which is just a kilometer from the campus and a civil hospital of Gandhinagar which is just 3 kilometers away from campus.

Canteen:

The institute does not have a canteen facility.

Recreational spaces for staff and students:

The staff members can play indoor games and the lush green campus of the institute is an ideal place for various leisure activities.

Safe drinking water facility:

Yes, the institute has safe drinking facility for students and staff members.

Auditorium:

There is a big auditorium equipped with audio-visual facility with a seating capacity of around 100 persons.

4.2. Library as a Learning Resource:

4.2.1. ***Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?***

Yes, the college has a library committee and following are the members of the library committee at present:

- Dr. K. G. Chhaya - Chairman
- Dr. K. B. Zankat- Member
- Mr. D. D. Bihola - Member
- Dr. D. S. Gandhi - Member
- Dr. A. A. Bakza - Member
- Smt. J. D. Pandya - Member (Librarian)

The responsibilities of the members of library committee are:

- The Committee will decide the library policy and will work accordingly.
- The Committee will suggest and implement the developmental changes in the library
- The Committee will allocate department wise budget from the main library budget of the institute.
- The head in consultation with the faculties of the departments will suggest the new titles to be purchased.
- The members will decide to add / cancel the subscriptions of Journals/Periodicals
- The members also do take surprise visit to the library about the use of books and magazines used by the students and the staff.
- To organize book fair in the institute.

The significant initiatives that have been implemented by the committee to render the library, student/user friendly is:

- Adoption of modern technology and digitalization of the library.
- Provision of display racks and library notice boards for announcing new arrivals of books and magazines.
- To make issue and returns of the books with the help of SOUL 2.0 software in the library.

4.2.2. ***Provide details of the following:***

- **Total area of Library:**800sq. m
- **Total seating capacity:** 40 seating
- **Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

  Library remains open on all working days including vacation period as per following schedule. (Closed on Sunday and Public Holidays)

Particular	Monday to Friday	Saturday
Opening Hours	10.30AM to 5.30 PM	10.30am to 2.00pm
Circulation Hours	12.00 noon to 4.00pm	12.00pm to 1.45pm

Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

Library is divided into different sections like Lending Section, Reference Section, Circulation Counter, Reading Section, Newspapers reading area, one computer for accessing e-resources, Periodicals/Magazine Section.

4.2.3. ***How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.***

Every faculty members are encouraged to suggest the books and journals as per the need of the syllabus and recent development to enrich both learning and teaching process. The faculty member forwards the required list of books and journals to their respective head of the department. The head of the department after making consolidated list sends to the head of the institution. After receiving lists from all the heads, the Principal and library committee decides the books and journals to be purchased from the list received from the heads depending on the availability and non-availability in the library. The purchase procedure is done as per the government rules.

The following table displays the purchase of learning resources:

Year	Books	Journals	e-resources	CD/DVD
2011-12	368	-	-	-
2012-13	-	-	-	-
2013-14	-	-	-	-
2014-15	-	-	-	-
2015-16	127	13	-	-

4.2.4. ***Provide details on the ICT and other tools deployed to provide maximum access to the library collection?***

The Library of an institute have an e-resource corner which is aided with a computer and internet facility which make the availability of N-LIST program, where the user can have access to 31 lakhs of e-books and more than 6000 journals

OPAC:

Library automation has done recently so OPAC is in process.

Electronic resource management package for e-journals

Electronic resources are managed under the availability of N-LIST program, where the user can have access to 31 lakhs of e-books and more than 6000 journals

Federated searching tool to search articles in multiple databases

Yes, through N-LIST program in coordination with INFLIBNET

Library website

No, separate website for library but the college do have a website wherein study corner has been incorporated.

In-house/ remote access to e-publications
Each staff members are provided their individual user ID and password of INFLIBNET, which can be assessed in-house as well as remote.
Library automation
Library have opted SOUL2.0 software recently and is under progress towards fully automation.
Total numbers of computers for public access
Yes, a computer is available for public access
Total numbers of printers for public access
Yes, a printer is available for public access
Internal bandwidth/speed 2mbps/10mbps (1GB)
Yes, an internet with 4mbps is available on computer at library
Institutional repository
No
Content management system for e-learning
No
Participation in resource sharing network/consortia (like INFLIBNET)
Yes, we have a membership of the INFLIBNET.

4.2.5. ***Provide details on the following items:***
Average numbers of walk in
Average numbers of walk in ranges from 50-55 per day
Average numbers of books issued/returned
Average numbers of books issued/return ranges from 10-15 per day
Ratio of Library books to students enrolled
Library is rich in books and has approximately 9525 books and ratio of the book: student is 1:7
Average numbers of books added during last three years
Average numbers of books added during last three years is about 77/year.
Average numbers of login to OPAC
Facility is to be opted yet and is under the process of procurement
Average numbers of login to e-resources
Average numbers of login to e-resources ranges from 15-20 per day.
Average numbers of e-resources downloaded/printed
NIL
Number of information literacy training organized
Institute has not organized any literacy training program yet.
Details of "weeding out" of books and other materials
NIL

4.2.6. ***Give details of the specialized services provided by the library:***
No

4.2.7. ***Enumerate on the support provided by the Library staff to the Students and teachers of the college.***
The support provided by the Library staff to the students and teachers of the institute is in the form of:

- E-corner: Computer
- Internet with N-LIST

- Overnight issue of reference books
- Reading room for students
- Separate study tables for the staff
- Timely issue/return of books
- Maintaining peaceful and academic environment
- New books, magazines are displayed on a separate display board for the students to easily identify once they enter the library.
- A number of subject and GK (General Knowledge) oriented Magazines; Employment News and newspapers are available for the students and faculty.
- Old question papers of internal tests and university exams in all the subjects are made available to the students.
- Copies of syllabi prescribed by the university, with question-wise division of marks etc. are also available to students for ready reference.
- The library staff keeps the faculty and the students updated regarding its latest acquisitions.

4.2.8. ***What are the special facilities offered by the library to the visually/physically challenged persons? Give details.***

Till date the college did not have any visually disabled students. Hence the library offers no special facilities in this regard.

As regard to the physically challenged students, the library staff assists the physically challenged student in obtaining materials/ documents. They are also given top priority while issuing/returning books. Physically disabled students are provided guidance about the use of library facilities. The library staff takes care of them in all aspects for the comfort within the library.

4.2.9. ***Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)***

No, the post of librarian was vacant from last few years and is filled recently by the Office of Commissioner of Higher Education. The library gets the oral/informal feedback from its users in the form of complaints, suggestions and recommendations.

4.3. IT Infrastructure

4.3.1. ***Give details on the computing facility available (hardware and software) at the institution.***

Number of computers with Configuration (provide actual number with exact configuration of each available system):

The institute has around 48 computers for students and staff members. The configurations are Intel Pentium Dual Core. There are 6 laptops, allotted to the head of the department each. The configurations are Intel Pentium Core 2 Duo.

Computer student ratio: 1:28

Standalone facility: Currently every head of the department has an independent laptop. Each department is also facilitated with computer system with internet facility.

Wi-Fi facility:

Institute campus is fully Wi-Fi enabled and this facility is freely available to the faculty and students.

Licensed software:

The IT facilities were availed long back i.e. before 2006, and are working well with preinstalled software provided at the time of purchase, hence in order to cope up with the current technology we are in process to procure new hardware and software.

Number of nodes/ computers with Internet facility:

All Computers of our institute are with Internet facility.

Any other:

Government Science College, Gandhinagar has put forward an effort to setup the DELL Computer lab for SCOPE examination with 25(1 Server+24) terminals.

4.3.2. ***Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?***

The institute has more than 48 computers available to the students as well as staff members. These computers have internet facility, so the students and the staff can access to the computer around the clock. There is also Wi-Fi facility available in all the way.

4.3.3. ***What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?***

The institute has developed a computer lab in the past five years. The institute further plans to develop its digital capacity by adding many more computers with advanced configurations. The institute also has a computer attached to the library which is being used as e-resource corner by students. The strengthening and expansion of digital capacity will help to conduct online examinations, attendance, notice circulation, paper less admission procedure in the future. All the departments have LCD projectors connected with computers but in the future the institute is planning to install projectors in all the class rooms. The institute has also planned to purchase digital podium.

4.3.4. ***Provide details on the provision made in the annual budget for procurement, up-gradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)***

As it is a government college, the provision for ICT is made by Commissioner Office on behalf all government colleges.

4.3.5. ***How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?***

- Teaching staff of the college utilize the e-resources to make the teaching-learning easy and smooth.
- They also make the use of ICT in teaching learning to make it more effective and interesting.
- Every department has LCD projector so they make full use of it while teaching theory and practical.

4.3.6. ***Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.***

- Though the institute does not have ICT enabled classrooms but both the seminar hall and auditorium have ICT facilities which are used by the faculties for effectively delivering their lectures.
- Every department is well equipped with LCD projectors and computers with internet broadband and also with Wi-Fi facility. The faculty members also make use of these facilities in laboratories.
- Final year students are also encouraged to make presentation using ICT technology.
- We have Digital English Language Laboratory (DELL) at out institute which is equipped with 25 computers servers connected with one master computer. Those students who opt for SCOPE examination are trained in DELL laboratory. DELL laboratory has been developed with the aim to improve communication skills of students.
- For enabling all the students to have access to the lectures delivered by eminent academicians from across the state, nation and abroad and to facilitate virtual learning, college has one spacious room which provides technology enabled learning facilities to the students.

4.3.7. ***Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?***

Academic staff of the college is aided with the user ID and password for N-LIST, and an e-corner in library where the students are provided N-LIST program, where the user can have access to 31 lakhs of e-books and more than 6000 journals. Many faculty members make use of this facility while preparing their research papers.

4.4. Maintenance of Campus Facilities

4.4.1. ***How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?***

Building:

Being a government college, the Public Works Department (PWD) maintains the building of the college as and when the need arises.

Furniture:

For purchase of new furniture, college has to submit their proposal with specifications and details to the office of Commissioner of higher Education in the month of August of financial year. This proposal based on the justification given by the college for the necessity of purchasing the furniture is then forwarded to the Education department by the Commissioner office for making provision of grant in the budget. Once the provision is made in the budget by the Education department, the grant is sanctioned and is disbursed by the commissioner office to respective colleges. The college as per the government purchase rule purchases

the necessary furniture for the college with concurrence with the purchase committee. The repairing work of the furniture is given to the agency approved by the government.

Computer:

Our institute possesses about 48 computers and for the maintenance – AMC is given to an external agency.

Equipment:

- All the laboratories are well equipped with the instruments.
- College takes services from the manufacturer for repairing of instruments.

Year	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Building	-	-	-	-	4993700/-
Furniture	-	2000000/-	-	-	-
Equipment	243820/-	60000/-	1958421/-	-	-
Computers	-	-	-	-	-
Vehicles	-	-	-	-	-
Any other	-				
Lab& Lib	432633/-	-	676998/-	559292/-	228484/-

4.4.2. ***What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?***

The institute follows the standard practice for the maintenance and upkeep of the different facilities of the campus as per the rules and procedure of Government of Gujarat.

4.4.3. ***How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?***

Every department carries out calibration and repair of different equipment at the end of every second quarter. If an instrument becomes dysfunctional, immediate repair is carried out by the manufacturer.

4.4.4. ***What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?***

Solar panels have been installed on the roof of the institute. So, there is very less possibility for power fluctuations.

CRITERION- V

STUDENT SUPPORT AND PROGRESSION

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student mentoring and support

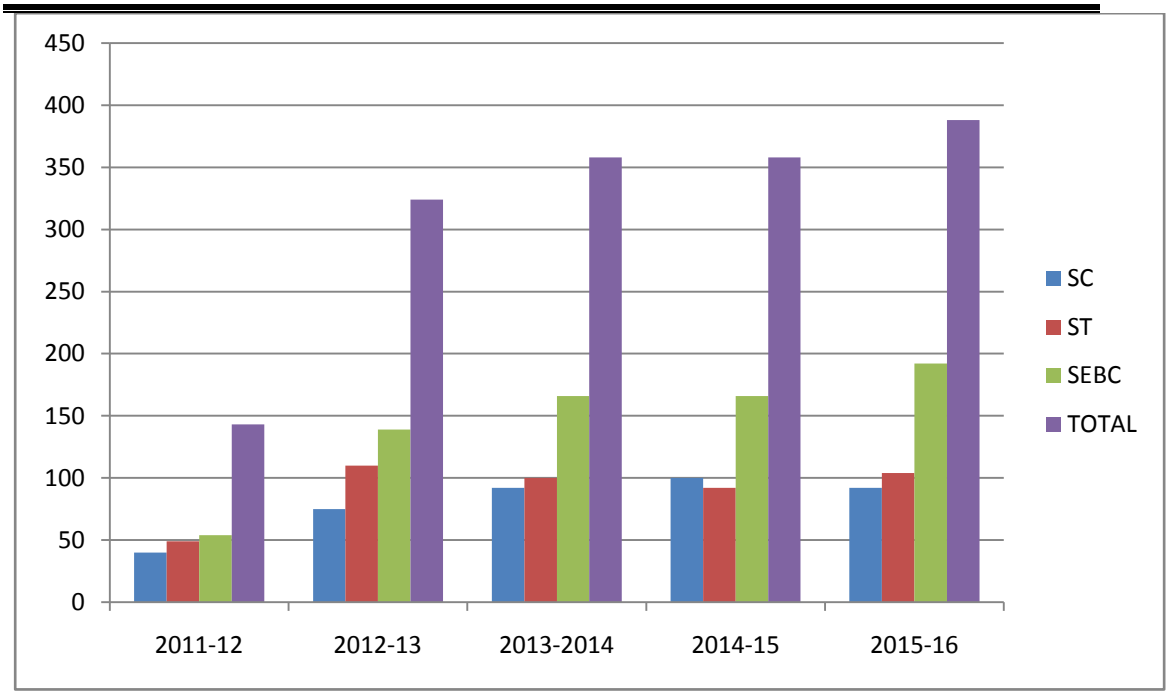
5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

- The dynamic website of college provides information about the different courses offered, subject combination, Departments, faculty information, academic calendar, hostel facilities, co-curricular activities such as sports, NCC, NSS, Alumni, special achievements with photographs and forthcoming events.
- The college being affiliated to Gujarat University and the first-year admissions procedure being carried by the central admission committee information like courses offered, no of sanctioned seats, admission schedule, procedure for admission, fee structure, are displayed on the university's website
- Brief overview of the college is given by the Principal on the welcome speech to the first-year students.
- The student union, senior students assist the fresher at admission time.

5.1.2 Specify the type, number and amount of institutional scholarships/free ships given to the students during the last four years and whether the financial aid was available and disbursed on time?

- Scholarships are awarded to the SC, ST and SEBC students by the Social Welfare Department, Government of Gujarat. The application is forwarded to the department by the college and the financial aid was disbursed in time.
- Faculty members assist the students in applying for the scholarships and the administrative staff completes the online registration work.
- Forms are filled during the month of September, and the amount is directly deposited by the Social Welfare Department in students account linked by Aadhar card.

Year	SC	ST	SEBC	TOTAL	Amount disbursed(Rs)
2011-12	40	49	54	143	5,02,446
2012-13	75	110	139	324	9,38,995
2013-14	92	100	166	358	9,34,369
2014-15	100	92	166	358	9,34,369
2015-16	92	104	192	388	12,46,961



5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

Agency	2011-12	2012-13	2013-14	2014-15	2015-16
State Government	22 %	28 %	25 %	25 %	25 %

5.1.4 What are the specific support services/ facilities available for?

Students from SC/ST, OBC and economically weaker sections

- College admits the stipulated percentage of reserved category students as per rules of Government of Gujarat.
- An orientation program is organized by the Principal to acquaint the students.
- College has an Equal opportunity cell headed by a faculty member assisted by a member of administrative branch. The cell guides, encourages students to apply for scholarships.
- Hostel facilities are available to students at nominal rates.
- Students are facilitated with books for preparation of competitive examinations and for this purpose the grant is given by RUSA.

Students with physical disabilities

- Proper care and quick response at the time of admission to students having any physical disabilities.
- College has ramp facility for such students
- Separate seating arrangement for such students on the ground floor during the examination.

Overseas students

There are no overseas students in this college.

Students to participate in various competitions/National and international

- College proactively creates opportunities for students to represent the college and compete at inter college, zonal and state level competition and the grant for such participation is granted by KCG, Government of Gujarat.
- Students are encouraged to participate in Youth festival organized by university.
- The Sapthdhara activities provide a platform to the students to express their talent at inter college, state level competition.
- The snacks, travelling expenses during such competitions are borne by the college.
- Information about such competition is displayed on Notice Boards.
- The students are encouraged to present papers and posters in academic seminars. Science fair is organized at the college and students from neighbouring colleges are invited.

- Every year a field trip or excursion/ study tour is organized.
- College facilitates students with free subscription to Gujarat Rojgar Samachar those who appeared in general knowledge test conducted by college.

Medical assistance to students: health centre, health insurance etc.

- College arranges general check-up and Thalassemia test every year.
- College has a PHC in the periphery of 01 km. Emergency service of108 is available around the clock.
- Blood donation camp, awareness program on AIDS is conducted within the campus.
- Students are covered under Insurance Scheme of Government of Gujarat, in case of accident the college forwards the case for Shahid Vir Kinariwala Vidhyarthi Suraksha Juth Vima Yojna" of Gujarat Government.

Organizing coaching classes for competitive exams

- College has a career and placement cell (UDISHA CLUB) which guides the students for preparation of competitive exams.
- College has a sub centre funded by KCG, GoG for coaching students.
- College building is acquired by GPSC/ Boards on Sundays for conducting competitive exams, wherein the unused question papers are utilized for conducting General knowledge test for college students.

- College's Knowledge Corner provides information on current affairs.
- College facilitates students with free subscription to Gujarat Rojgar Samachar.
- College Organized a Special coaching class for aspirants in Navy, an initiative sponsored by Employment office, Government of Gujarat.
- The college also displays the information regarding various job vacancies on the college notice board.

Skill development (spoken English, computer literacy etc.)

- College has a well-equipped Dell lab (24 +1) for proficiency in spoken English an initiative by Government of Gujarat.
- Every Department of the college has Computer and Internet facility.
- Selected students were trained at KCG, Ahmedabad on soft skills.
- Students of Third year attended a Soft Skill Training Programme for a week at the Government Commerce College, Gandhinagar.

Support for "slow learners"

Faculty members recognize such students and are personally guided and motivated.

Exposures of students to other institution of higher learning/corporate/business house etc.

- Field visit/study tour of Botany students to GEER Foundation conducted to educate them on Biodiversity and Use of remote sensing & GPS.
- Industrial as well as visit to P.G centre organized to familiarize chemistry students about the recent trends in research.
- Visit to Facilitation Centre for Industrial Plasma Technologies (FCIPT), Gandhinagar to familiarize students of third year physics with latest equipment like electron microscope, X-Ray diffraction instrument etc.
- Students are encouraged to participate in Seminars, workshops.

Publication of student magazine.

Students are encouraged for poster presentation and make Working models at science day.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

- Entrepreneurial skill is an essential life skill which provides students a chance to stand on his feet.
- Visit to the Entrepreneurial Development Institute, Gandhinagar.
- Canteen day is organized during which the students get a chance to show their skill and interact with community. The revenue regenerated is disbursed to the needy.
- The DELL lab helps the students to develop communication skill in English.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competition, debate and discussions, cultural activities etc.

- Every student of the college has to opt for at least one of the Sapthdhara activity like creativity, song music, folk dance, sports, drawing, painting, drama and knowledge which are arranged every year on a regular basis.
- Competition is organized at college level and selected students are encouraged to participate at inter college level.
- Students winning in such competitions are honoured and awarded certificates during the Annual Day celebration.
- Students are encouraged to participate in Khel Mahakumbh an initiative of Government of Gujarat
- College organized Self-defence training for girls funded by RUSA. An international Medalist coach trained girls on Martial Art.

Additional academic support, flexibility in examinations

Students participating in NSS camp, NCC program are granted leave from theory, practical class and their absence is compensated by conduction extra practical. Retest is conducted for NCC cadets, NSS volunteers, sports student.

Special dietary requirements, sports uniform and materials

Sports kit, tracksuit is provided to participants by the college.

Tea, snacks served and first aid facility are provided during the training and sports events.

Travel expenses borne by the college during such events.

Any other

College has a big ground were major sports events can be organized. The inter class competition are planned and arranged during the morning session such that the teaching session is unaffected.

5.1.7 ***Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR-NET, UGC-NET, SLET, GATE/CAT/GRE/TOFEL/GMAT/Central/state services, defense, civil services, etc.***

- Career and Placement cell guides, motivates, students to prepare for Competitive examination.
- College's Library has a good number of books for preparation on NET/SLET and competitive exams.

- Faculty guides and encourages students for PG courses.
- City has a good number of coaching classes, even the various community centres have hostel and coaching centre for such preparation, wherein students are never at lack of learning resources.
- A good number of students have appeared and qualified in the special employment drive by the Government of Gujarat and got selected as office assistants in Secretariat, Food and Drugs Dept., Revenue & Forest services, as higher primary, secondary teachers, etc., As the college does not have a structured mechanism an exact number of the successful candidate cannot be elaborated.

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

- Students are counselled on academic and career services.
- Seminar on Carrier advancement was conducted by Mr. Ovesh Vora and Mrs. Paridhi Trivedi.
- Seminar was organized by G.I. Media group Gandhinagar for preparation of Competitive Examinations Study material in form of CDs was provided to students.
- Students are counselled and motive to be good citizens.

5.1.9 Does the institution have structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes.)

- College has a Career guidance and placement cell (UDISHA CLUB) headed by a faculty.
- Establishment of UDISHA club was on 02/09/2011.
- Third year chemistry students sent as a trainee to Reliance Industries limited, Jamnagar.
- Seminar was organized by IIHT on Computer Hardware and networking along with three days training
- Job placement by L &T Company for chemistry students.
- On requisition from HR Titan solution a list of chemistry students forwarded for recruitment.
- A List of students recommended to Valem Polytechnique for recruitment.
- Carrier guidance by D.S.P office, Police Training Centre, Gandhinagar for girls.
- Students trained at KCG, Ahmedabad on soft skills.
- Girls visited EDI (Entrepreneurship Development Institute), Ahmedabad for carrier development.
- One week Training Programme on soft skills at the Government Commerce College, Gandhinagar.

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

College has a suggestion box for students to raise their grievance. Issues are amicably resolved by the faculty. If, there are any major issues they are addressed by senior faculty in consultation with the Principal.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

A CWDC (Collegiate Women Development Cell) is framed with a female faculty as the chairperson supported by other four faculty members.

No, such cases of sexual harassment have taken place and reported to the cell during the last four years.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

College has an Anti-ragging committee with Principal as a chairperson, a faculty as a member secretary, GS, LR, hostel secretary as member, Taluka magistrate, police inspector, parents of GS & LR, as members and two social workers, one male and a female each as members.

College has a Discipline committee headed by a senior faculty, and other five faculty members which functions in coordination with the Anti ragging committee.

As a cordial and safe environment is being created by the senior students, no such incidence occurred during the last four years.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

Students belonging to the SC, ST, SEBC, categories are facilitated with free boarding and lodging facilities by state government's welfare Department.

Monthly pass at concessional rate for travelling by the GSRTC and railways to every needy student.

Girl student are given free pass by GSRTR for travel from their residence area

Hostel facilities to students at a nominal charge of Rs 90 per semester.

Compulsory Thalassemia and health check-up for first year students at no cost.

The Tuition fees are waived for girl students by the Government of Gujarat.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

The college has an Alumni committee which met on 2013. The association has members from academic and non-academic field. It provides a forum for the association; faculty and students to share their views and contribute for the overall development of the institute.

Every year the alumni committee meets and their suggestions are welcomed. Students are enrolled and Rs 100 are charged for life time membership.

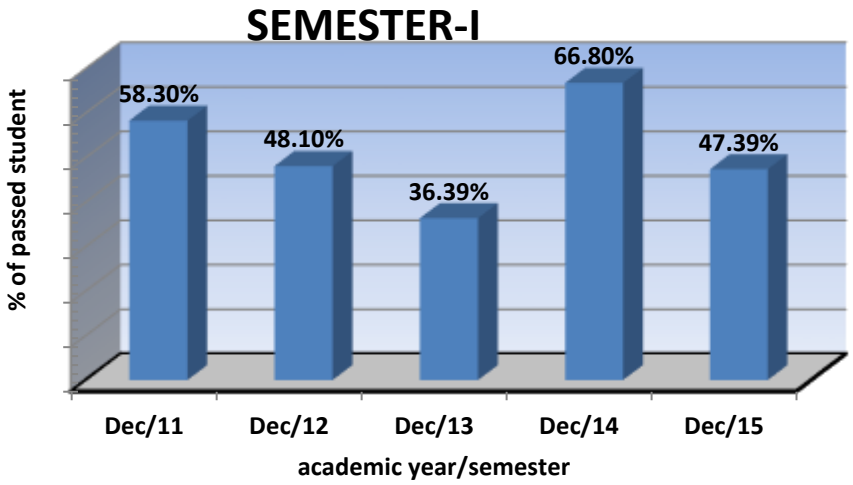
Kaushal Fajalia – prefers corporate service Pvt. Ltd has a MoU with the college and agreed to train students on personal development.

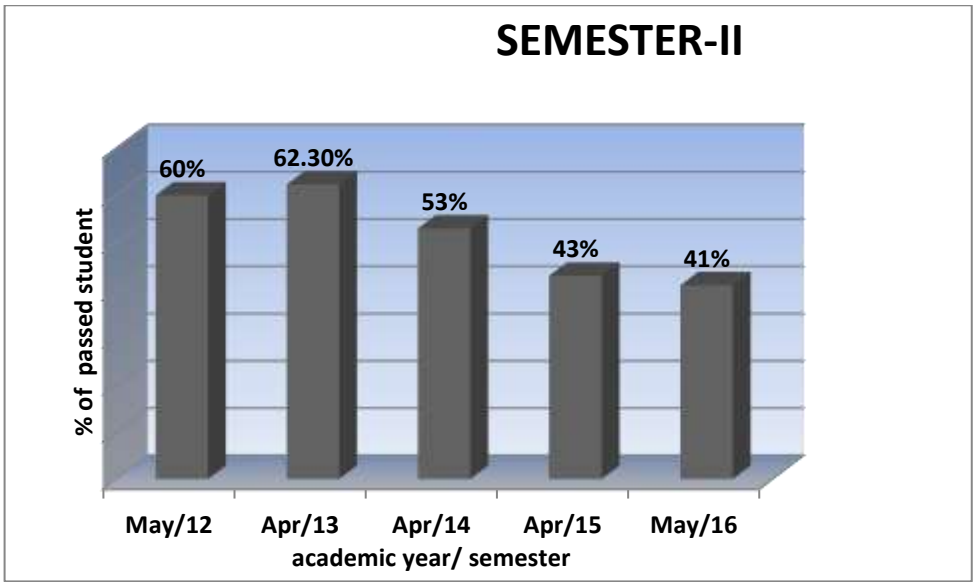
5.2 Student Progression

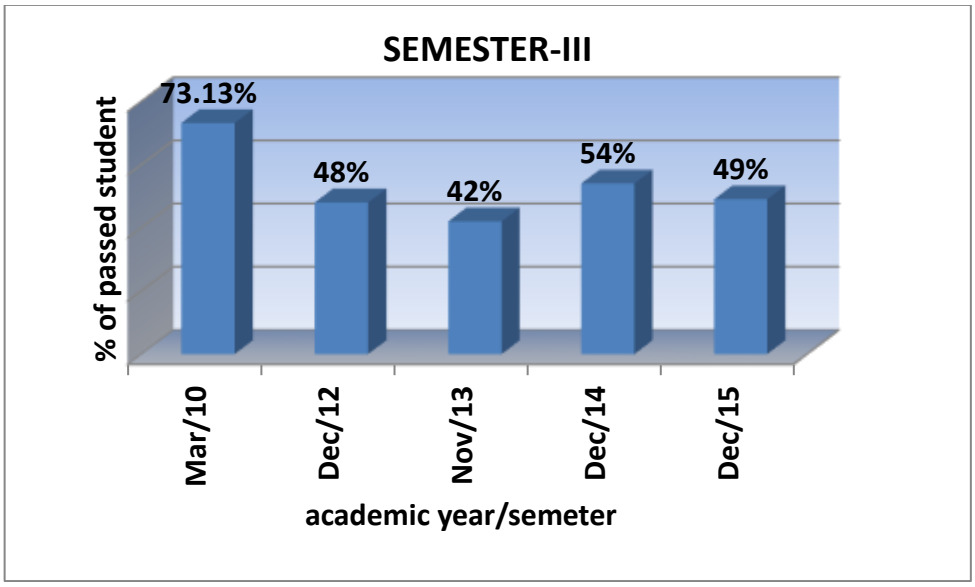
5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

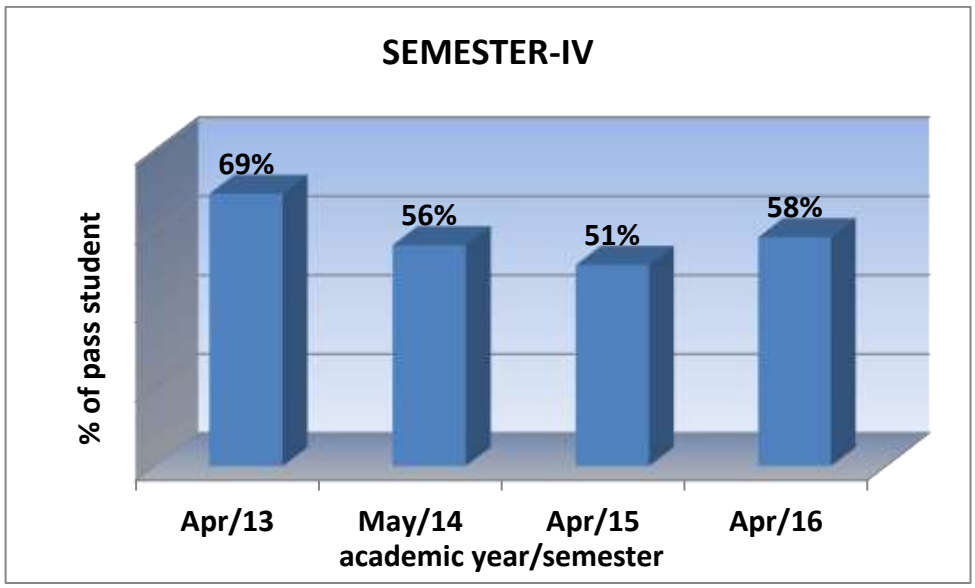
Student Progression	%
UG to PG	45
PG to M.Phil.	
PG to Ph.D.	
Employed -Campus selection Other than campus recruitment	

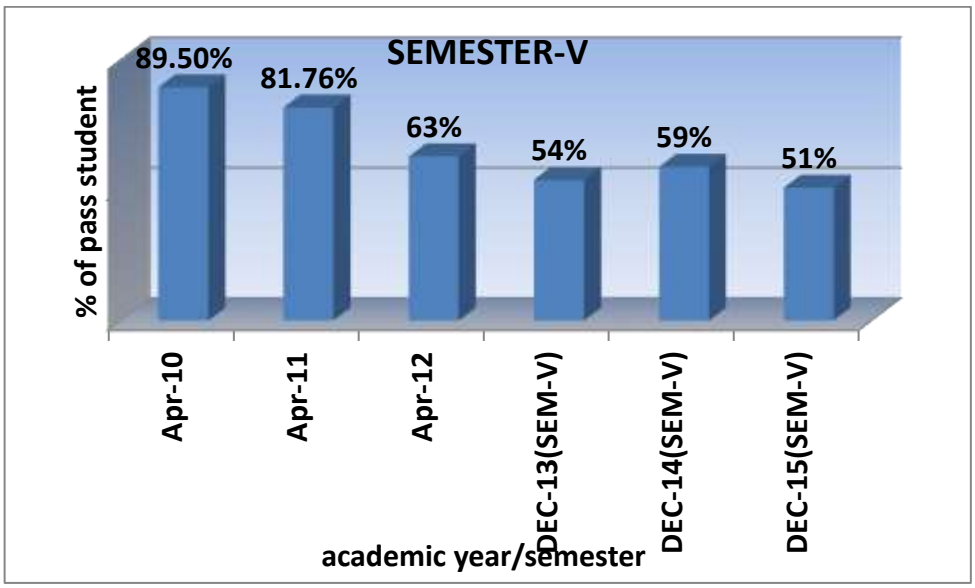
5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme wise details in comparison with that of the previous performance of the same institution and that of the colleges of the affiliating university within the city/district.

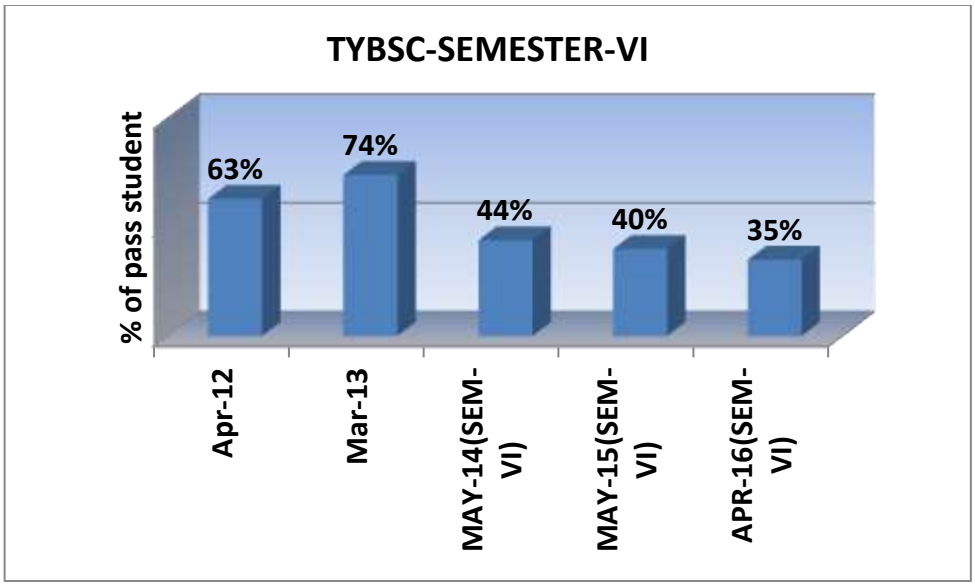





SEMESTER-III
% of passed student
73.13%
48%
42%
54%
49%
Mar/10
Dec/12
Nov/13
Dec/14
Dec/15
academic year/semeter


SEMESTER-IV
% of pass student
69%
56%
51%
58%
Apr/13
May/14
Apr/15
Apr/16
academic year/semester


SEMESTER-V
% of pass student
89.50%
81.76%
63%
54%
59%
51%
Apr-10
Apr-11
Apr-12
DEC-13(SEM-V)
DEC-14(SEM-V)
DEC-15(SEM-V)
academic year/semester



5.2.3 How does the institution facilitate student progression to higher level of education and/ or towards employment?

The college has a Career and placement Centre/UDISHA which facilitate student guidance as well as placement opportunities.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

Faculty personally support and mentor such students who are at risk of failure and drop out. Married girl students are encouraged to continue studies and if necessary family members counseled to allow them complete their graduation.

5.3 Student Participation and activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

- The college perceives sports as a means of empowering young students. Games like Table tennis, chess, carom, Badminton, handball competition is organized by college.
- Outdoor games like volleyball, kabaddi is played and inter class cricket competition organized.
- Athletic meet was organized in 2013.
- Students and teams are encouraged to compete at inter-college level as the university programme.
- Sapthdhara programme is planned and activities are carried out throughout the year.
- Students have participated in Elocution, easy writing, drawing, mehandi, poster making, drama, quiz, solo dance, group dance, rangoli competition.
- Students participate in the Youth festival organized by University.
- Students can opt for NSS, NCC.
- The co-curricular activities of NSS give their volunteers a chance to develop organizational and administrative skill.

- NSS has a sanctioned strength of 100 students and every year a batch of 50 students participates in a week programme on socio-economic issues during December January.
- The fresher participate in orientation programme,
- Other NSS activities are celebration of Gandhi Nirvan day, Tree plantation and Cleanliness day, Independence Day, Youth day.

- Blood Donation camp, AIDS awareness, conservation of monuments, educating primary students and "Move towards cashless economy" are some of the other activities of NSS.
- Volunteers participate in NSS workshop, training organized by District village development Agency.
- College has a NCC unit 2 INDEP COY, Gandhinagar, a part of 1 Gujarat Boys Battalion, Ahmedabad with its headquarter at Army Cantt. Ahmedabad.
- Care taker, Ms. Jignasa J. Vaghela, who herself is a trained ANO of JW at Army School, with an alpha grade and a best Firer, Gold medalist of the batch.
- Each NCC Cadet is provided a pair of khaki Uniforms, leather shoes, and socks. Every cadet enrolled in NCC gets Rs 12/ per day on training.
- Other activities of NCC are participation in various camps like CATC, Army attachment, NIC, BLC, Trekking Expedition, Sports and RDC.
- NCC cadets escort the Principal during the Independence Day celebration.

Programme Calendar.

June	Yoga Day
July	Fresher's welcome and Orientation Programme
August	Tree plantation Day, Independence Day Celebration
September	student council selection, Teacher's Day, Sapthdhara activities
October	Swachh Bharat Abhiyan, Field trips/study tour
November	NCC day
December	Traditional days,
January	Youth day, Republic Day, Inter college sports competition
February	Annual Day.

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State/ Zonal / National / international, etc. for the previous four years.

Sport Achievements:

Year	Name	Game	Tournament	Result
2013	Ram Gautam	Riffle Shooting	Inter college level	I
2015	Manvendra S. Mehta	Cricket	Under-19, cricket team for national tournament	
2015	Chavda Nirmalsinh	swimming	Inter zone Competition	II
2015	Vaghela Priyanka	Badminton	Inter zone Competition	
2016	Chavda Nirmalsinh	swimming	Inter college tournament	II
2016	Chavda Nirmalsinh	swimming	Khel Mahakumbh District Tournament	I
2016	Chavda Nirmalsinh	swimming	Inter State championship	I
2015	Dhanraj Makwana	Sabarmati Full marathon.	Sabarmati Full marathon.	13
2016	Nita Rathod	volleyball	Inter zone Selection	
2016	Zinkal Patel	Handball	West zone All India Inter university, Jaipur	
2016	Manvendra S. Mehta	cricket	Participation in under 19 National tournament	
2016	Volley ball and Cricket team		Qualified for quarter finals, inter college tournament.	
2016-17	Kabaddi, Badminton, Table tennis, Athletics		Participated in inter college tournament.	

NCC achievements:

Year	Name	Achievement
2014	Dilipsinh Rajput	participated in National Games, Delhi
2015	Dilipsinh Rajput	As a flag Bearer of Gujarat Dte, National Games, Delhi
2015	Dilipsinh Rajput	Participated in all India Narmada Trekking camp
2016	Dilipsinh Rajput	National Integration Camp at Uttarakhand,
2016	Dilipsinh Rajput	Participated in Basic mountaineering course at Mt. Abu as A Grade Cadet.
2016	Parth Chaouhan	Pre RDC as IGC cadet.
2016	Ankit Thakor	Pre RDC as IGC cadet.
2016	Nilesh Katariya	NIC at Uttarakand.
2016	Rajan Jani	NIC at Uttarakand.
	Satwant Singh Swaroopsingh Jat	As a football player in National NCC games

Two cadets were selected as representative of Gujarat DTE NCC in front of Hon. Chief Minister of Gujarat.

CADET RAJPUT DILIPSINH

Cultural Achievements:

2013-14	Jagdish Garasiya	Best Actor	Youth Festival	
2014-15	College students	One act play	North zone Youth festival	I
2014-15	Kaushik Gadhvi, Jay Jetya, Nirav Vihariya, Hardik Makwana.	Quiz	Youth festival	IV
2015	HardaVatsal Vora	Spot photography	Youth festival	I
2015-16	Priti Vishnubhai Patel	Solo dance	Inter college competition	I
2015-16	Priti Vishnubhai Patel	Lemon spoon	Inter college competition	III
2016	Keshav Patel	Quiz	Inter college	I
2016	Kamlesh Gadhvi	Quiz	Inter college	I

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The feedback is sought from Industry about the graduates. Interaction with the employers helps us to improve the quality of various programmes.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine and other material? List the publication/materials brought out by the students during the previous four academic sessions.

Students are encouraged for poster presentation and to prepare working model on Science day.

5.3.5 Does the college have a student Council or any similar body? Give details on its selection, constitution, activities and funding.

Student council is framed by the rules and regulation of Gujarat University. A student representative is selected from every 50 students on merit basis. Students of third and second year are selected for the post of General Secretary and Cultural General Secretary respectively. A girl student is selected for the post of Ladies representative. Other post of the Student council is Gymkhana General Secretary, Elocution General Secretary, and Magazine General Secretary. The student council has the right to vote for the University Senate and student welfare election. The students are honored at the College's Annual Day. The sports day, cultural days are managed by the student council. Expenditure of the events is managed in consultation with the Student Council. In addition to internal funds, they are permitted to raise funds through sponsors.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

College follows a student centric approach and has their say in the day to day functioning. Student representative serve as a member of the Anti-ragging committee whereas senior students counsel fist year students at the time of admission.

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the institution.

Alumni and former faculty of the institution regularly met and interact with the institute. Mr. Kaushal Fajalia – prefer corporate service Pvt. Ltd trains students on personal Development.

CRITERION- VI

GOVERNANCE, LEADERSHIP AND MANAGEMENT

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

MOTO: College has set its **motto** as *Jnanad Vindam Gauravam* (Knowledge gains you pride) which is mentioned in the college emblem.

VISION: Government Science College, Gandhinagar, will become the State Resource Centre in Science Education with national recognition and will provide flawless access to sustainable and learner-centric science education for excellence and service.

MISSION:

- To inculcate human values and generate environmental awareness in the society.
- To raise necessary infrastructure and provide essential facilities for the enhancement of science education among students.
- To work in harmony with state and central governments and other federal agencies for the development of higher education.
- To develop the world-class manpower through the quality education in order to meet the challenges of the highly competitive global market.
- To impart quality education with use of ICT and enable the students to overall personality.
- To provide necessary technical, research and professional skills.
- To provide guidance for self-empowerment
- To develop the healthy network in educational institutes towards Excellency.
- To contribute to create a better society through social services.
- To make the students employable.
- To create faith in self through practical responsibility.

In order to meet with the Mission and vision we adopt following activities

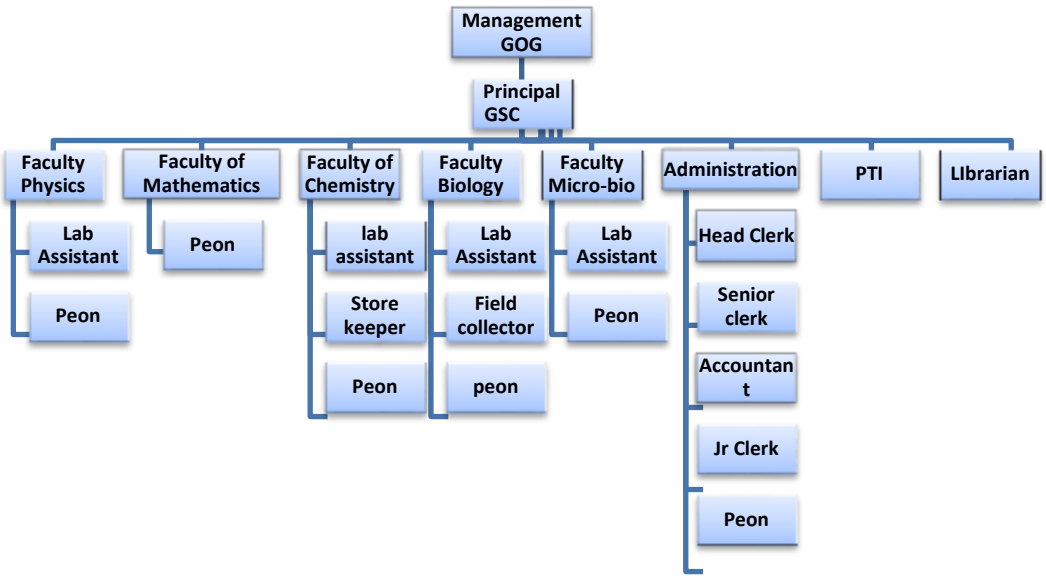
- All departments are fully equipped with computer, internet connection printer LCD projector and all teaching staff members have passed CCC++ exam in computer literacy by govt of Gujarat. A Seminar hall is also equipped with ceiling mount LCD projector.
- Encourage to participate in conferences for reading own research paper, Short time courses, refresher courses and other allied activities
- Birthday of great people are celebrated with suitable activities like Swami Vivekananda's birthday –book exhibition, quiz, workshop, ozone day-environmental awareness, AIDS day-creating awareness about AIDS. Etc.
- Women development cell, Placement cell, Counselling centre are active.
- Allowing visiting fellowships with other agencies like British council in India, KCG.

- Co-curricular activities regularly arranged, placement cell and carrier guidance cell are operational throughout the year.
- Subjects like Environment studies and bio diversity are part of syllabus.
- Submitting proposal to UGC and Government of Gujarat for infra structural development.
- Encourage staff to undertake research in multidisciplinary field.
- This institute is also connected with state-wide classroom, a unique facility of online class-room, called BISAG, College teachers from different subjects also give lecture on BISAG.
- For overall development of the student in extra-curricular activities like sports competition, debate, elocution, essay writing, folk dance, vocal music, mehndi, poster making etc. are also regularly conducted throughout the year and also arrange inter-college competitions.
- We also invite experts from various fields to motivate our students. Women development cell, anti-ragging cell, equity cell, placement centre are successfully conducting regular activities. We also conduct cleanliness drive, AIDS awareness campaign, blood donation camps, tree plantation camps, social service camp, basic leadership camps.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Policy on higher education is decided by the state government only but we are its own institution Principal and some senior faculty members are part and partial of the policy making committee headed by commissioner of higher education. We are also assigned duties to monitor the implementation of government policies on education in all grant-in-aid institutions and SFI. Here, we are also asked submit detailed report with our feedback.

6.1.3 What is the involvement of the leadership in ensuring:



The leadership directly motivates, monitors, guides and supports its staff at every stage.

Initially they invite proposal for development and special need under fresh items and routine item category in month of September every year. Once the proposal is submitted by the institute, it is forwarded to the education department of the state and then to finance department to make provision in the next financial year. Every year grants regarding ICT, extra-curricular activities and placement. Out-sourcing and security grants also sanctioned by the management of government of Gujarat for smooth functioning of the institution. Principal regularly calls on meeting with present and past students and gets necessary feedback from stake holders. A parent's meeting also held once in a year.

For promotion of research, we encourage faculties to participate in conferences, short term courses and refresher courses. We also send the faculty to other institution in India and abroad to learn or exchange organisational culture.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

We constitute committees to take up any process and instruct them to work as per the guidelines of university& government. Committee will plan on what to be done in year then permission is taken from the principal for the same and finalizing the date with concern of the faculty. Then, we approach the guest/ visiting faculty for the for finalizing date. We send the official invitation letter to the faculty/guest/ speaker. Notice is then circulated in the college and the interested students. We also plan to decide the venue and organize the event. Provide the material if required. We also take feedback from students as well as faculty and keeping the record of the same. Also, send it to local newspaper for coverage.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

- Principal & all the department heads decide calendar for semester based on schedule decided by Gujarat University.
- Announce the mid semester exam date to the students.
- Timetable displayed at appropriate time before exam commencement.
- Invigilators list prepared and communicated to the staff.
- Submission of Question Paper by the subject teacher to co-ordinator 15 days prior to the exam.
- Necessary arrangement for smooth conduct of exam.
- Send answer books for assessment to the examiner.
- Assessment of answer books by examiners within prescribed time limit.
- Prepare the final internal mark sheet.
- Internal record prepared and submitted to Gujarat University.
- University exam conducted as per University Schedule.
- Encourage for academic tours, industrial-visits.

6.1.6 How does the college groom leadership at various levels?

- Numbers of students have marginally increased since last five years
- College students gets higher percentage in university exams

- Students joining PG has also been increased
- Students have been selected at national level in NCC, NSS, Sports etc.
- Number of research papers published during the year is also increased.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments/ units of the institution and work towards decentralized governance system?

- Principal circulate the agenda /notice (from higher authority) for the meeting.
- During meeting agenda are discussed
- Minutes of meeting are recording and maintained
- Necessary / Agreed action are taken
- During next meeting, minute of meeting of last meeting are discussed

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Employee's involvement or participative decision is encouraged in every decision, and the involvement of stakeholders at all levels of an organization in the analysis of problems, development of strategies, and implementation of solutions is given proper weightage. This is because this is a government institute where the decision is taken with democratic touch. If not, then stake holders are free to represent their grievances and law of the land takes care of it.so far no any such grievances reported.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Government Science College, Gandhinagar is committed to:

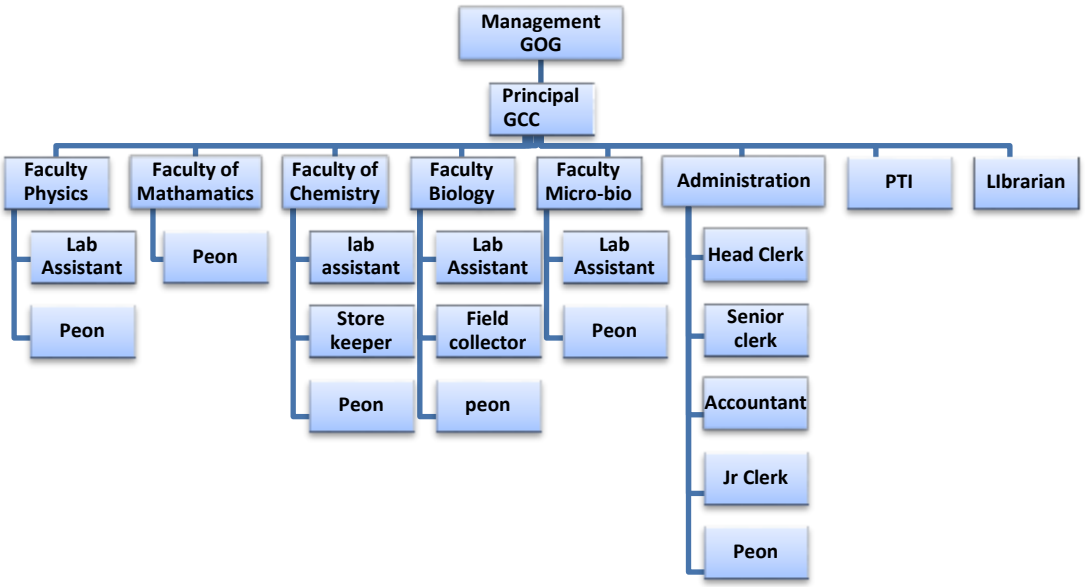
- Providing students with high quality of academic facilities and services which meet requirements and are fit for their purpose.
- Enhancing the skills of administrative and teaching staff through review and actively pursuing an on-going training policy, the objective of which is to prepare staff to perform their work more effectively.
- Promoting the culture of continual quality improvements and the philosophy of getting things "right first time".
- Continuously reviewing the supply, installation and timely completion to program.
- Promoting the quality by internal assessment and feedback reports from stake holders., and ensuring implementation by review, corrective and preventive action.
- Everyone is responsible for the quality within the institute and for maintaining high standards.
- We also plan to get recognition of the system.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Since this is a government college, a top down approach will be suitable to this institute where regional policy will be follow once national policy is

decided. So long as this institute is concerned, we plan to start PG courses start vocational courses and exchange of faculties and student program.

6.2.3 Describe the internal organizational structure and decision making processes.



6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

Greater emphasis is laid on the improvement of the quality of teaching learning processes in order to produce employable and competitive graduates from this institution. In every department, there is more than 85% of faculties having Ph D degree. Some of them are having recognition as Ph D guide. They will motivate students to go for postgraduate and/or PhD. They will also guide from where funding source and how to approach, (a) funding will be more impact and result oriented. As a leader principal motivate all staff to go for extension activities, consultation or to add capacity to improve individual 's academic bio-data. Putting a greater focus on research and innovation, workshop or discussion on IPR and collaborative research in multidisciplinary are arranged.

Various departments of state government have the common cause with this institution and work together like college celebrates "Van Mahotsav" and "Ozone day" every year in association with forest dept., Red Ribbon Club is established in this college with financial support from AIDS Control Society , Gujarat State , Health Dept. Soil mapping of various parts in Gujarat had been carried out by T.Y.B.Sc Chemistry students in association with agriculture department students were paid for the job they did.

Since this institute is a government organisation, recruitment is as per norms and all the benefits including group-insurance, medical, LTC, compensation, family pension scheme, GPF facility all are taken care of. Repetitive work with fresh students (like roll call, student data, committee details etc.) during the year has been identified and keep record in computer memory to save man hours and every year we developed a system.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

Internal Communication

- Discussion with the committee members for all the activities that would take place for an event/ circular task
- Deciding on the content of the notice/ circular
- Circulating notice in class/ place on notice board.
- Stake holders
- Provide students and parents a platform to share opinion about staff and institute and exchange suggestions.
- Take teacher's feedback forms and improvement of infrastructural facility forms from students
- We also analyse the feedback forms and get information regarding the trend/ demands. Thereafter we make necessary change in policy or recommend to higher authorities

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

They ask for proposal or detailed project report and process it for financial approval and administrative execution to higher authorities where they will take decision on merit basis as per policy of the state

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

- Sports committee resolved to purchase sports items and procured required items.
- Library committee resolved and completed book purchase process
- Cultural committee resolved to held various competitions at college and inter-college level, they could complete as per scheduled
- Exam committee resolved the policy regarding assessment and received co-operation from entire staff
- HOD committee resolved the purchase of lab items, ICT items and infrastructural maintenance and higher authority approved the project.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

This institution is not an autonomous, hence this is not applicable

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

A suggestion box is kept in college where any stake holder can drop his suggestion or complain, which is regularly checked by the Principal. Stake holders can also directly write to the principal through post/email. Any public can also get information under RTI act 2005.

All kinds of feedbacks, complains or suggestions are welcome by the institute and if it found suitable and as per the policy of the government, such items are considered fit for implementation and execution will be through Principal.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

No.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

This institute does have such system.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

- Encouraged to participate in short time courses/conferences/ seminars/ workshops /refresher courses/
- Encouraged to conduct workshop/conference/ competition at college
- They are given on duty leave for such involvement.
- Encouraged for collaborative research, apply for major/minor research projects
- Encouraged for consultancy
- Encouraged for faculty exchange, visiting faculties, invitation to scientists to visit institute
- Allow them to start or take up innovative methods of teaching-learning process, extra-curricular activities and research.
- We also take note in the term end meeting.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

- Paired assignment with an experienced, respected faculty instructor
- Consultation with respected faculties in the department or college
- Attend disciplinary workshops or national meetings on effective teaching
- Encourage publication of scholarly papers on pedagogy in the discipline.
- Every faculty will discuss and present what has gained during the training.
- Involvement with existing research programs led by other faculty
- Involvement with existing / collaborative outreach programs led by other faculty
- Knowledge Consortium of Gujarat, the learning resource center, can provide consultation on issues related to student learning.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

As per government norms, every year all faculties have to fill Self Appraisal Report (SAR) to the principal under whom they have served during the period 1st April to 31March every year. This report will also be written by principal and then it will be reported to the CHE for review, where he may ask explanation in case of adverse remarks, if any, by principal. If he is not satisfied anti-disciplinary action may be taken as a punishment. In case of

principal, CHE will be reporting officer and Secretary Education is reviewing officer.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

If any employee is found less efficient in own performance, then he will be communicated about the outcome and given opportunity to explain his side. Still the authority remains unsatisfied then steps like stoppage of one or more increment, transfer or compulsory retirement or suspension till removal from services can be taken.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

All teaching or non-teaching employees falling under regular government servants are available to them. Such schemes are housing loan, vehicle loan, festival advance, food advance, bonus, leave encashment, medical expense, group insurance, retirement benefits, family pension, maternity/paternity leave. Almost 90% staff has availed such benefit in last four years.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

We, as a college do not have right to establish/implement such policies but Commissioner of higher education, Gujarat state can extend the period of service and give extension of service as per rules in particular cases

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- Decide the amount and nature of expense that is needed for a particular task.
- If the expense amount is less than Rs.1000 the amount is given from petty cash after approval from Principal.
- If expense amount is more than Rs.1000, than bill is sent to central office or sometime paid from petty cash with principal's approval.
- Cheque is received from central office within 2 weeks.
- Receipt obtained is kept with accounts department.
- Daily transactions of cash are recorded in Misc. receipt book and cash book.
- Verification of the same is done on periodic basis by professor in charges and signed by principal.
- Cash book is regularly maintained and audited regularly.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

Since we are the government college, entire grants of salary and other expenditures are given by government. This expenses are subject to audit from the education department, local audit department (State government) and Accountant General office (Central Government)

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

Since we are the government college, entire grants (100%) of salary and other expenditures are given by government. Surplus grants to be surrendered on 31st of March every year.

Year	Non-plan		Plan	
	Grant Received	Expenditure	Grant Received	Expenditure
2011-12	23334540/-	23327173/-	-	-
2012-13	29991593/-	29991593/-	2000000/-	2000000/-
2013-14	35536000/-	35530000/-	2600000/-	2599000/-
2014-15	39070369/-	39207823/-	1575000/-	1434000/-
2015-16	44378000/-	44020000/-	6945000/-	6927000/-

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

- From UGC we get grants under five-year plan.
- RUSA is also giving grants regarding security, out-source, equity, placement
- Social justice dept. of the state gives grants against scholarship to SEBC/SC/ST minority students

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If yes, what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes, the College has established an Internal Quality Assurance Cell (IQAC) as per recommendations and guidelines provided by UGC and NAAC.

- Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks
- Equitable access to and affordability of academic programmes for various sections of society
- Optimization and integration of modern methods of teaching and learning;
- The credibility of evaluation procedures;
- Ensuring the adequacy, maintenance and proper allocation of support structure and services;
- Sharing of research findings and networking with other institutions in India and abroad.
- IQAC cell is comprised of the Principal, senior teaching faculty members, external members and non-teaching staff/student representative.
- IQAC coordinates with the Principal and Departmental Heads of the college to make quantitative as well as qualitative transforms in the academic activities.
- The IQAC cell executes academic calendar of the college.

- The IQAC Cell monitors the teaching – learning process, continuous comprehensive evaluation process, co-curricular and extra-curricular activities carried out in the college.
- IQAC cell also encourages teachers to participate in faculty development programmes conducted by UGC-HRDC of various universities as well as Knowledge Consortium of Gujarat (KCG).
- IQAC cell also encourages teachers to participate in conferences, seminars, symposia, workshops.
- This Cell ensures that there is always a ready availability of information in each of the department regarding infrastructural facilities, teaching-learning activities and other amenities of the College.
- This Cell visits each department regularly and supports them as per their academic, infrastructural requirements and ensures improvement in departmental performance.
- IQAC emphasizes the need to encourage students to actively participate in extra – curricular activities as part of overall personality development.
- The Principal along with the IQAC team members interact directly with the stakeholders whenever is necessary. Such type of interaction with stakeholders is beneficial for enhancing the quality of various functions within the college.
- The Cell tries its level best to take into account the students' feedback.
- The Cell prepares Annual Quality Assurance Reports (AQARs) of the college. The College Website presently carries all the AQARs since the last NAAC evaluation is carried out.

b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

The major suggestions of the IQAC have been approved by the college principal and higher authorities of the Department of Education, Government of Gujarat are as under

- To fulfil minimum number of faculties in each subject and carry out recruitment process as early as possible.
- Recruit librarian & PTI.
- Physical Infrastructural development of college
- Construction of new building comprising of class rooms, laboratories
- Renovation and repairing of classrooms and laboratories of old existing building
- Strengthening the laboratories by purchasing of required laboratory equipments
- Strengthening the ICT facilities
- Provide Wi-Fi facilities in college campus
- Enhance sports facilities by procuring sports equipment
- Establish Central Computer laboratory.
- Establish Language laboratory
- Strengthening of library by purchasing of text and reference books, periodicals, journals in library.
- Provide user ID and passwords for N-LIST of INFLIBNET, for the use of e-resources for teaching-learning process

- Proper cataloguing in the Library and install SOUL library management software.
- Promotion of research and publication by faculty.
- Promotion of extension activities.
- The Principal takes the decision and implements plans in consultation with IQAC cell members, HoDs of all the departments and senior staff members of the college.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes, the external members are also included in IQAC Committee as per the UGC & NAAC guidelines. External members are appointed by The Commissioner of Higher Education that is only for the carrier advancement scheme only.

d. How do students and alumni contribute to the effective functioning of the IQAC?

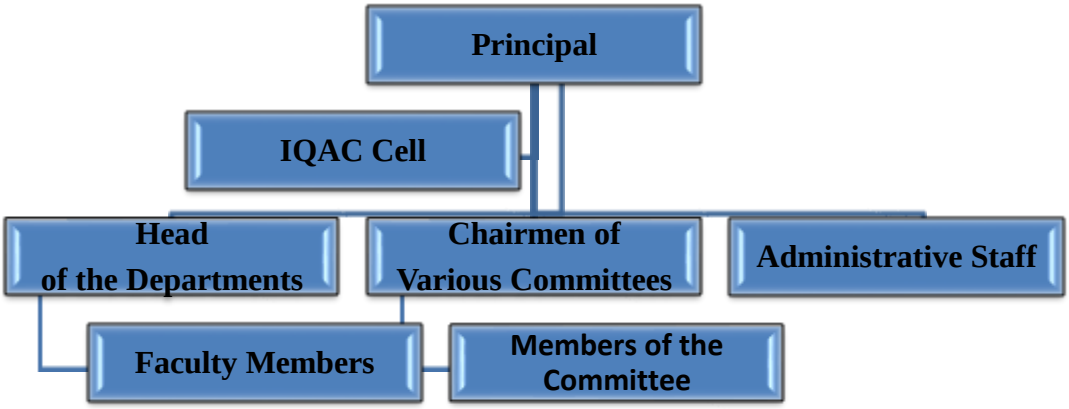
- Students are basically the primary stakeholders towards whom all efforts of the IQAC are focused. Their feedbacks are treated with the extreme seriousness and quality improvement measures are taken accordingly.
- Students' informal and formal feedback to IQAC cell provides a substantial base for improvement of infrastructural developments in the college.
- The academic calendar of the college may improvise on the basis of continuous review with staff as well as students. The co-curricular, extra-curricular and outreach extension activities are integrated with the academic schedule.
- The college has an alumni association. Alumnae of the college provide suggestions for strengthening the effectiveness of the college.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

- Representatives of Teachers, Students, Non- Teaching Staff, Alumni association and Management, are present in the IQAC team who provide their opinions and also convey the planning and the way of implementation of the activities of IQAC to their communities.
- All the strategies of IQAC are formulated with the prior consultation of the HoDs of the departments, chairman of the various committees and senior faculty members. They help in procuring feedback from different departments of the college and it also facilitates communication to the staff. Moreover, at the time of execution of the academic plans, the staff members and students are involved.
- As the representatives of all the stakeholders are with IQAC from the beginning of planning, the IQAC contributes to the effective functioning of the college.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

Yes, institution has an integrated framework of hierarchy as shown in figure for Quality assurance of the academic and administrative activities.



6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

- Since the direct training of staff is outside the formal structure of governance of the college, the impact has not been quantified so far. But …
- Principal as the head of institution conducts meetings of the teaching as well as non-teaching staff at the regular interval of time for the effective implementation of the quality assurance procedures.
- Faculty members are encouraged to undertake faculty development programmes as follows:
  - Orientation Courses conducted by UGC – HRDC of Universities
  - Refresher Courses conducted by UGC – HRDC of Universities
  - Workshops on minor and major research projects proposal preparation organized by KCG
  - Faculty Improvement Programme conducted by UGC – HRDC of Universities under UGC scheme
  - Faculty Improvement Programme conducted by UGC – HRDC of Universities under RUSA scheme
  - Faculty Improvement Programme conducted by KCG

  Various Seminars / workshops / training programmes organized by Universities, Colleges, Research Institutes, Institutes of National Importance, Organizations, Associations, etc.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

- 'Yes' the institution undertakes Academic Audit annually and submit Annual report of the college to office of CHE.
- The Department of Education has established Knowledge Consortium of Gujarat.
- The institute undergoes AAA for pre- NAAC internal evaluation.
- All the IQAC committee members, Heads of the Departments, Chairman of Various committees and senior teachers jointly discuss and review the results, progress and inconvenience of different departments thereby forming strategies to raise the graph of achievements and widen the horizons.

- The outcomes - such as student intake, results, academic routine, internal and external examination process, etc. are analyzed and sufficient measures are taken to the institutional activities for the betterment of the institution. The resultant suggestions are also forwarded to the higher authorities for due consideration.
- This audit definitely improves the quality of the institutional programmes.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

- KCG has prepared their own "AAA Kit" for internal quality on the guideline of NAAC.
- The college follows all the UGC guidelines, university rules. Moreover, being a Government College, all the instructions from the commissionerate of higher education as well as the Department of Education are followed to maintain standards in the academic activities including teaching-learning process, evaluation process, co-curricular activities, extra-curricular activities and extension activities.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

In order to review the effectiveness of teaching – learning process, Institute follows various mechanisms as under

- Classroom interaction with students
- Through continuous comprehensive evaluation of students by means of conducting quiz, seminar, assignments etc.
- Through internal assessments of students
- Annual external examinations

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders? Any other relevant information regarding Governance Leadership and Management which the college would like to include.

The College communicates its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders through the Notice Board, College website, Newspaper, etc.…

Leadership and Management which the college would like to include

The IQAC conducts meetings at regular intervals to look after the academic quality of the college and the takes up appropriate measures to help the departments to achieve excellence in teaching - learning activities. All spheres of the institution including its governance get input from the IQAC ensuring quality benchmarks.

CRITERION- VII

INNOVATIONS AND BEST PRACTICES

CRITERIA VII INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

Gandhinagar, the capital of Gujarat is known as a green city. Government Science College is situated in this green city. The campus is surrounded by good number of old trees and fresh plantation maintained by college. Botany Department of College has developed botanical garden having medicinal and other useful plants. A green audit is carried out for entire city undergone hence there is no need to go it separately. But this institution has also opted to go for green audit through GEMI. Van Shree trust, Gandhinagar is continuously monitoring this activity. In order to save environment, reuse of papers for printing purpose and writing a short note/message on piece of waste paper from computer printer is a common practice.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Energy conservation

- To get good score we also put more weight on use of LED bulbs, use of solar energy in place of electricity, rain water storage and ground water recharge. notices are display on the college web page.
- Class rooms are full of air circular and open window type so minimum use of energy in the form of fans and bulbs are required. We continuously check the lights are off when in not use or required.
- Class rooms are equipped with minimum power consuming **LED bulb**.
- In the Gandhinagar city, the state government has started G bike bicycle project so most of the student utilized bicycles for comes to college in the form of transportations.
- College organizes awareness programs frequently like Ozone Day celebration, Environment day celebration, Van Mahotsav, Plantation camps to conserve energy and protect environment. Subject of environment studies is also a part of syllabus for all students.
- Seminars on topics like 'Nuclear Energy' and 'Biodiversity' to enlighten staff and students. College offers Biodiversity and environmental studies as a part of curricula during course.
- As a contribution to minimize carbon emission or carbon neutrality, this institute has good control over use of air conditioner. We also insist to circulate notices on college web page to minimize use of papers.
- College is having hostel facility where 100 students are accommodated in the hostel because of room sharing one fan or bulb may utilized for three students so energy can be saved. All the bulbs are of less power consuming of LED bulb.
- Use of polythene bags on campus is strictly discouraged
- Encouraging the use of CNG based vehicles among staff, students and also surrounding community

સાયન્સ કોલેજના સ્ટુડન્ટસ દ્વારા 100 રોપાનું વાવે

દિવ્યભાસ્કરના 'એક વૃક્ષ એક જીંદગી' અભિયાન અંતર્ગત રાજ્યની સામાજિક અને રાજકિય સંસ્થાઓ જોડાઈને સહયોગ આ છે. ત્યારે સેકટર 15 સ્થિત સરકારી સાયન્સ કોલેજ કેમ્પસમાં 10 વિવિધ રોપાઓનું વાવેતર કર્યું હતું. કોલેજના વિદ્યાર્થીઓ વૃક્ષો તેનું ઉછેરની સાથે તેની સંભાળની જેમ લીધી હતી. કોલેજ એન યુનિટના કો. પૂર્વી તરપદાએ જણાવ્યુ હતુ કે દિવ્યભાસ્કરના 'એક જીંદગી' અભિયાન અંતર્ગત કોલેજના કેમ્પસમાં સરકારી સાયન્સ એનએસએસ યુનિટના વિદ્યાર્થીઓના હસ્તે વૃક્ષારોપણ કાર્યક્રમનું કરાયુ હતું. જેમાં કેમ્પસમાં ગુલમોહર, વડ, લીમડો અને ઓરસલ્લી 100 રોપાનું વાવેતર કરવામાં આવ્યુ હતું.

Use of Renewable energy

Government Science College has stalled solar panels in good number on the terrace of the college building as well as on hostel building. Using this solar penal all the bulb and fens in the class room are work. By using of these solar panels light bill is reduced by 50%.

Water harvesting and storage

Water harvesting is very useful for the science colleges as this facility is used in the practical work by chemistry and botany department where double distilled (Salt free) water is essential. Government Science College has big terrace area is useful to collect rain water in the big tank, kept at ground level. This collected rain-water is then used throughout the year in all the Departments. Thus, the revenue is also saved every year.

Hazardous waste management

Government Science college has NSS unit. It works actively since last four years. During part of NSS activities, College has taken initiative to Hazardous waste management every year in the college, society and villages near to Gandhinagar. College campus is cleanup and the waste is dumped in to soil for few months to produced best organic fertilizers which are useful to grow new plants.

THURSDAY 04-02-2016

સંક્ષિપ્ત સમાચાર

સાયન્સ કોલેજ દ્વારા સ્વચ્છતાની શિબિર યોજાઇ

સરકારી વિજ્ઞાન કોલેજ, સે-૧૫ દ્વારા સ્વચ્છતા અને શિક્ષણ જાગૃત્તિની સાત દિવસીય શિબિર તાજેતરમાં જકાણી માતાજી મંદિર, લેકાવાડા ખાતે યોજાઇ હતી. કોલેજના એનએનએસ યુનિટના ડો.ઉમેશ તરપદાના માર્ગદર્શને હેઠળ યોજાયેલી શિબિરમાં કોલેજના વિદ્યાર્થીઓએ સવારે પ્રભાત ફેરી, પટાંગણની સફાઇ, જૂથ સભા સહિતના કાર્યક્રમો થકી લોકોને સ્વચ્છતા અને શિક્ષણ અંગેની જાણકારી આપી હતી. ઉપરાંત ગામમાં સ્વચ્છ ખાડા બનાવવા, ભીંતસૂત્રો, અંધશ્રધ્ધા નિવારણ, સ્વાસ્થ્ય જાગૃત્તિ, વ્યસનમુક્તિ, કોમીએકતા, ભાષા નિયંત્રણ સહિતના કાર્યક્રમો પણ યોજાયા હતા. શાળાના બાળકોમાં સ્વચ્છતાના ગુણો કેળવાય તે માટે સ્વચ્છતા અંગેની જાણકારી આપવામાં આવી હતી. તેમજ શિક્ષણથી સમાજ અને પરિવારનો વિકાસ તેની પણ માહિતી આપી હતી. ત્યારબાદ બાળકો માટે વિવિધ રમતો યોજવામાં આવી હતી. રમતોમાં વિજેતા વિદ્યાર્થીઓને ઇનામ આપી પ્રોત્સાહિત કર્યા હતા. શિબિરના સમાપન પ્રસંગે ગામના સરપંચ લાલસિંહ વાઘેલા, અમદાવાદના પૂર્વ મેયર અમીતભાઇ શાહ, યજ્ઞેશભાઇ પંડ્યા, રોહિતભાઇ શાહ, દેવેન્દ્ર સુખડિયા સહિત ઉપસ્થિત રહ્યા હતા.

Efforts for Carbon neutrality

Every year Government Science College celebrated **No Petrol Day** where 1400 students along with 80 staff members actively participate & use the public transports. Government Science college has organized workshop regarding carbon neutrality. In the last year college, has celebrated "**Ozone day"** in association with the forest department of Gujarat state to protect environment and to direct students and society in to new direction to save environment.

E-waste management

E-waste management is one of the important issues and is needed in the institution. Today's era is the time for technology but beside use of it another side of coin is waste come out every year in the form of cartridge, printer, monitor, CPU etc. It is necessary to treat it properly otherwise it causes serious environment pollution. Gujarat Government has started 13 centres in the State to recycle E-waste. Government Science College supplies all the e-waste to government contractual body & Government Register centre ECS Environment Ltd. Ahmadabad for recycles.

રાજ્યભરમાં ઈ-વેસ્ટના નિકાલ માટે ૧૩ સ્થળોએ રિ-સાઈકિલિંગ સેન્ટર ઊભા કરાયા

7.2 Innovation Introduced During Last Four Years

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

- Admission in the Government Science College has been done online.
- Use of ICT, LCD projector for teaching.
- Campus is WI-FI enabled
- College has organized number of work shop in the different subjects like **Ozone Day** celebration, Environment day celebration, Van Mahotsav, Plantation camps to conserve energy and protect environment to motivate the students.
- Library of the college is upgraded with SOUL2.0 software for issue-return and latest books & other reading facility.
- College has also started Dell lab for the students to do assignment and other work related to internet free of charge.
- College has organized one week NSS camp for the students every year. One village is adopted by us and camps are regularly arranged at the same village. Here students take up innovative activities like survey of social issues like girl child early marriage, women-empowerment, self-defense and then submit to the government as a feed-back.
- Students & parents are invited to give their suggestion and feedback.
- Government Science College & College hostel has RO filter with Cooler for drinking water.
- Entire college campus is under CCTV surveillance.
- College also has NCC & NSS unit to prepare better students for society and nation.
- Faculties of the college are almost doctorate and recruited through GPSC exam.
- Government Science College has planned schedule of work throughout year and also have different committees like Anti ranging cell, IQAC, Time Table, Cultural, Internal Marks Entry, NSS, Hostel, NCC, SC/ST Cell, Sports etc. committees work actively thought the year.
- Almost all the students of SC/ST got scholarship.
- Girl students are exempted from paying fees.
- Medical checkup for all students done every year in thalassemia, HIV, Iron, sickle cell etc.
- Dual side paper use for the print & avoid the use of paper as far as possible to carry out work through soft copy.
- Alumni meeting arranged regularly for mutual benefit. Students of Government Science College are well-set most of the students got admission in PG courses. Our students are also in the abroad for study by getting students visa.
- Government Science college has organized blood donation camp by Civil Hospital, Ahmedabad & collected 60 bottles of blood.
- We organize book exhibition on youth day (12th Jan), and Science day (28th Feb)
- Carry out equity based activities in gender sensitization or SC/ST/OBC boys and girls. Conduct placement centre and counselling centre, separate books purchase for equity and arrange classes for competitive examinations.

- We propose to learn certificate courses in foreign language speaking and knitting,
- Piggy Bank in Classroom' with a view to inculcate a sense of saving and helping the needy.
- Feedback system from the students for continuous improvement in teaching-learning process.
- Activities by the students to provide free education to under privileged students.
- De-centralization of administrative and financial work

7.3 Best Practices

7.3.1. Helping to Poor Community Students

Government Science College has organized canteen day celebration every year. Students are makes their stall to cell different food items in the token rates and every students & faculties are participated in to these events. Finally, whatever fund is received were used to help poor community students learning in the different government schools. Last year college has received around Rs. 30000/-. College has purchased the stationary and distributed to different government primary schools situated in sector 13, 28, and poor community students learning in sector-1 of Gandhinagar city.

કેન્ટીન ડેમાં એકત્રિત કરેલા નાણાંનો ઉપયોગ સામાજિક સેવા પાછળ

સાયન્સ કોલેજના છાત્રો દ્વારા બાળકો

30 હજારની શૈક્ષણિક સામગ્રીની ભેટ

સે. 13ની પ્રા.શાળા, આદર્શ શાળાના વિદ્યાર્થીઓને શૈક્ષણિક વસ્તુઓની ભેટ

Recognition House best student and best teacher announced on college notice board. At the end of academic year best students are given trophy during

annual function. Students scoring more than 80% of marks are exempted from paying non-government fees irrespective of caste, creed, gender, religion, belief, faith, race.

- Ramp is made for physically disabled students
- Active Grievance Redressal Cell
- Inter college talent hunt competition
- Subject wise club which promotes the domain and research in the subject
- School Adoption
- MOU with private entrepreneurs
- CCTV
- WIFI
- Bio-matrix attendance
- SOUL 2.0 Software for library
- Counseling to girl student in CWDC.
- Establishment of Internal Quality Assurance Cells
- Thalassemia Awareness Programme
- H.I.V. Aids Awareness Programme
- Teaching through state wide classroom, college teachers also participate.
- Organization of Sciences Fairs in the college
- Saptdhara Activities for Students' Holistic Development
- Expert Lectures on Life Skills and Career Guidance. To Start Model Test Paper Scheme with TT
- To collect University papers of last 3 Years (college web site link)
- Education and Industrial Visit Botany dept.
- Internal assessment
- Installation of white digital interactive board
- Laptop or Computer for all faculty members
- Projector in all department
- Rotating Trophy
- Suggestion box and timely response
- Clubs for students' eco-club,
- Cells for students Anti ragging, Women harassment cell, placement & counseling cell
- Exemption from paying fees by girl student.
- Alumni Association
- Online admission system

EVALUATIVE REPORT OF THE DEPARTMENTS

EVALUATIVE REPORT OF THE DEPARTMENT OF BIOLOGY

1. **Name of the Department:** Biology
2. **Year of Establishment:** 1970
3. **Names of Programmes / Courses offered:** U.G. (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)
4. **Names of Interdisciplinary Courses and the Departments/Units involved: -** None
5. **Annual / Semester / Choice Based Credit System (Programme wise): -** Semester CBCS
6. **Participation of the department in the courses offered by other departments: -** Nil
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.: -** Nil
8. **Details of courses/programmes discontinued (if any) with reasons:** none
9. **Number of Teaching Posts:** Present Situation as in January, 2017

Designation	Sanctioned	Filled
Professor	NIL	NIL
Associate Professor	00	00
Assistant Professor	10	09
Adhyapak Sahayak	00	00

10. **Faculty profile with name, qualification, designation, specialization:** (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Sr. No	Name of Faculty	Qualification	Desig-nation	Special-ization	Expe-rience	No. of Ph.D. Student Guided in last 4 years
1.	Shri D.D. Bihola	M.Sc.	Asst. Professor	BOTANY	20	none
2.	Dr. R.K. Parwani	M.Sc. Ph. D	Asst. Professor	BOTANY	14	none
3.	Dr. M.M. Patel	M.Sc. Ph. D	Asst. Professor	BOTANY	14	none
4	Dr. P.P. Prajapati	M.Sc. Ph. D	Asst. Professor	BOTANY	20	none
5	Dr. S.H. Gor	M.Sc. Ph. D	Asst. Professor	BOTANY	14	none
6	Dr. R.N. Maru	M.Sc. M.Phil. Ph. D	Asst. Professor	BOTANY	14	none
7.	Dr. S.I. Vyas	M.Sc. M.Phil. Ph. D	Asst. Professor	ZOOLOGY	22	none
8.	Dr. C.V. Shah	M.Sc. M.Phil. Ph. D	Asst. Professor	ZOOLOGY	14	none

9.	Dr. D.A. Odedra	M.Sc. M.Phil. Ph. D	Asst. Professor	ZOOLOGY	22	none

11. List of senior visiting faculty: none

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: nil

13. Student -Teacher Ratio (programme wise)

B.Sc. Semester: I & II : 20:1
B.Sc. Semester: III & IV : 20:1
B.Sc. Semester: V & VI : 6: 1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Academic Support Staff (Technical)	**Sanction**	**Filled**
Laboratory Assistant	04	02
Field Collector	01	00
Gas Mechanic	00	00
Store Keeper	00	00
Administrative Support Staff	00	00
Peon	03	02

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil.:

Sr. No	Name of faculty	Qualification
1.	Dr. R.K. Parwani	**Ph.D.**
2.	Dr. M.M. Patel	**Ph.D.**
3.	Dr. P.P. Prajapati	**Ph.D.**
4.	Dr. S.H. Gor	**Ph.D.**
5.	Dr. R.N. Maru	**M.Phil. Ph.D.**
6.	Dr. S.I. Vyas	**M.Phil. Ph.D.**
7.	Dr. C.V. Shah	**M.Phil. Ph.D.**
8.	Dr. D.A. Odedra	**M.Phil. Ph.D.**

Highest Qualification	**Ph.D.**	**M.Phil.**	**P.G.(M.Sc.)**	**Pursuing Ph.D.**
No. of Faculty	08	00	01	none

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr No.	Name of Faculty	Title of the Project	Funding Agency	Grant Received	Duration
	NIL	NIL	NIL	NIL	NIL

18. Research Centre / facility recognized by the University: None

19. Publications:

(A) Publication per faculty
(B) Number of papers published in peer reviewed journals by faculty and student: (B1: National / B2: International)
(C) Number of publications listed in International Database (For E.g.: Web of

Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

(D) Monographs: A Book written on a Single Subject / Topic by Single Author
(E) Chapter in Books
(F) Books Edited
(G) Books with ISBN/ISSN numbers with details of publishers; - mentioned below
(H) Citation Index
(I) SNIP
(J) SJR
(K) Impact factor: 0.1 to 1: 01 paper, 1 to 2: 05 papers, 2 to 3: 04 papers.
(L) h-index

Sr No	Name of Faculty	A	B1	B2	C	D	E	F	G	H	I	J	K	L
1.	Dr.D.D. Bihola	2		2									2.16 1.02	
2.	Dr. P. P. Prajapati												-	
3.	Dr. R. K. Parwani	5		5				2					3.1 3.1	
4.	Dr. D. A. Odedra												-	
5.	Dr. C. V. Shah	1		1									-	
6.	Dr. M. M. Patel	3		3									2.16 1.02 0.47	
7.	Dr. S. H. Gor	6		6				2					-	
8.	Dr. R. N. Maru	3		3									1.27	
9.	Dr. S. I. Vyas	2		2									1.5 1.6	
10.	Dr. S.K. Patel	12		12				5						
	Total	**34**		**34**				**09**						

Dr. R.K. Parwani –ISBN:3659408158 Lambert Academic Publishers.,10;365941602, Lambert Academic Publishers**.,**

Dr. S.H. Gor - ISBN:3659 Lambert Publishers., 10;365941602, Lambert Academic Publishers.

20 Areas of consultancy and income generated: Nil

21 Faculty as members' in

a) National committees
b) International Committees
c) Editorial Boards

Name of Faculty	Committee / Organization / Editorial Board	Type of Membership	Position	Year of Joining / Duration
NIL	NIL	NIL	NIL	NIL

22 Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme: none

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: none

23 Awards / Recognitions received by faculty and students:

Dr.R.K. Parwani

(1) "International Travel Grant Award" for presenting paper in European biomass conference in Berlin, Germany in year 2011

(2) International Travel Grant Award" for presenting paper in Third International conference on Agriculture and food in Bulgaria in year 2015

24. List of eminent academicians and scientists / visitors to the department

Sr No	Eminent Academician / Scientist / Visitor's Name	Institute / Organization	Function	Date
	NIL	NIL	NIL	NIL

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National: none

b) International: none

***A Training Programme was organized by the Department and the Forest Department on "Biodiversity Conservation" on 29th & 30th December, 2016.**

Workshop was organized

26. Student profile programme / course wise:

Name of Course / Programme (Refer Q.4)	Application Received	Selected	Enrolled		Pass Percentage
			Male	Female	
B.Sc. Botany					
2012	11	11	07	04	72 %
2013	24	24	04	20	96 %
2014	34	34	20	14	73 %
2015	59	59	31	28	55 %
2016	40	40	21	19	80 %
Nil: no interdisciplinary course					

27. Diversity of Students

Name of the Course	% of Students from the Same State	% of Students from the Other States	% of Students from Abroad
B.Sc. Semester: I & II	100	00	00
B.Sc. Semester: III & IV	100	00	00
B.Sc. Semester: V & VI	100	00	00

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

*** two students (Shri Ajaysinh Rathore & Dhananjay Sadhu) are qualified the GPSC examination and got selected for the post of ACF, forest Department.**

29. Student progression

Student progression	**Against % enrolled (T.Y.B.SC)**				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Students Enrolled in B.Sc. (Subject)	**11**	**24**	**34**	**59**	**40**
UG to PG	**63%**	**60%**	**65%**	**50%**	**65%**
Employed: Campus selection • Other than campus recruitment	-	-	-	-	-
Employed: Other than campus recruitment	-	-	-	-	-
Entrepreneurship/ Self-employment	-	-	-	-	-

30. Details of Infrastructural facilities in the Department

a) Library: One departmental library

b) Internet facilities for Staff & Students: Broadband and Wi-Fi facilities for Faculty members: JIO Wi-Fi facility for students

c) Class rooms with ICT facility: no.

d) Laboratories: 02 laboratories equipped with LCD projector

Sr No	**Laboratory**	**Intake Capacity**
1	Botany Lab. for First & Second year.	40
2	Botany Lab. for third year.	30
3	Zoology Lab for First & Second year.	30

31. Number of students receiving financial assistance from college, university, government or other agencies: No, student has availed such financial assistance.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

None

33. Teaching methods adopted to improve student learning

- Use of ICT for teaching learning process
- Use of Bio visual charts, permanent slides
- Regular field visit/ excursion

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- **Every year "Tree Plantation Day" is organized in the college campus on initiative of the Biology Department.**
- **Study tour/ excursion is organized very year to educate students on**

Biodiversity.

- **Biology Department's MoU with Gujarat Biodiversity Board, wherein Dr. S.K. Patel worked as a member in the Technical Assistance group for the Preparation of the Biodiversity Register.**

35. SWOC analysis of the department and Future plans

- **Strengths of Biology Department:**
  - **Healthy student Teacher ratio**
  - **Experienced Teachers with good academic record**
  - **Student centric approach**
  - **Herbaria and a Botanical garden with rare plants.**
  - **Good infrastructural facilities**

- **Weakness of Biology Department:**
  - **Lack of supporting staff like laboratory assistant & Field collector**
  - **Students with weak academic record which drastically effects our subject result.**
- **<u>Opportunities of Biology Department:</u>**
  - **City has well reputed institute like GEER foundation which felicitate students for higher studies and research activities.**
  - **<u>Challenges of Biology Department:</u>**
  - **Improve the performance of the students.**
  - **Create research attitude among students.**
- **<u>Future Plans of Biology Department:</u>**
  - **Offer Zoology as a subject at Graduate level.**

Take up minor research projects.

EVALUATIVE REPORT OF THE DEPARTMENT OF CHEMISTRY

1. **Name of the Department:** CHEMISTRY
2. **Year of Establishment:** 1970
3. **Names of Programmes / Courses offered:** B.Sc.(CHEMISTRY) (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)
4. **Names of Interdisciplinary Courses and the Departments/Units involved: -** NIL
5. **Annual / Semester / Choice Based Credit System (Programme wise): -** CURRENT CBCS
6. **Participation of the department in the courses offered by other departments**
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.: -** NIL
8. **Details of courses/programmes discontinued (if any) with reasons: -** NIL
9. **Number of Teaching Posts:** Present Situation as in January, 2017

Designation	Sanctioned	Filled
Professor	NIL	NIL
Associate Professor	NIL	NIL
Assistant Professor	13	09
Adhyapak Sahayak	02	02

10. **Faculty profile with name, qualification, designation, specialization: (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Sr No	Name of Faculty	Qualification	Designation	Specialization	Experience	No. of Ph.D. Student Guided in last 4years
1	Dr. Yogesh S. Patel	M.Sc., Ph.D.	Assistant Professor	Organic Chemistry	20 years	NIL
2	Sh. Rajendra R. Patel	M.Sc.	Assistant Professor	Organic Chemistry	23 years	NIL
3	Sh. Yogesh M. Patel	M.Sc.	Assistant Professor	Organic Chemistry	14 years	NIL
4	Dr. Kiran S. Nimavat	M.Sc., Ph.D.	Assistant Professor	Analytical Chemistry	14 years	6 completed 4 pursuing

5	Dr. Umesh P. Tarpada	M.Sc., Ph.D.	Assistant Professor	Organic Chemistry	4 years	NIL
6	Dr. Deepen S. Gandhi	M.Sc., Ph.D.	Assistant Professor	Organic Chemistry	4 years	NIL
7	Sh. Vivek N. Dave	M.Sc.	Assistant Professor	Organic Chemistry	4 years	NIL
8	Dr. Jayanti S. Rajora	M.Sc., Ph.D.	Assistant Professor	Analytical Chemistry	4 years	NIL
9	Dr. Dipti K. Dodiya	M.Sc., Ph.D.	Assistant Professor	Organic Chemistry	4 years	NIL
10	Dr. Jignesh P. Dalvadi	M.Sc., Ph.D.	Vyakhyata Sahayak	Organic Chemistry	2 years	NIL
11	Dr. Nirali S. Mewada	M.Sc., Ph.D.	Vyakhyata Sahayak	Organic Chemistry	2 years	NIL

11. List of senior visiting faculty: - NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: -

SAME WORKLOAD ASSIGNED AS PARMENANT FACULTY i.e. 100/11 = 9.09%

13. Student -Teacher Ratio (programme wise)

B.Sc. Semester: I & II : - **394 students / 11 faculty = 36 (ratio)**

B.Sc. Semester: III & IV : - **348 students / 11 faculty = 32 (ratio)**

B.Sc. Semester: V & VI : - **307 students / 11 faculty = 28 (ratio)**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Academic Support Staff (Technical)	Sanction	Filled
Laboratory Assistant	3	3
Field Collector	NIL	NIL
Gas Mechanic	1	NIL
Store Keeper	1	NIL
Administrative Support Staff	NIL	NIL
Peon		3

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil.:

Sr No	Name of faculty	Qualification
1	Dr. Yogesh S. Patel	M.Sc., Ph.D.
2	Dr. Kiran S. Nimavat	M.Sc., Ph.D.
3	Dr. Umesh P. Tarpada	M.Sc., Ph.D.
4	Dr. Deepen S. Gandhi	M.Sc., Ph.D.
5	Dr. Jayanti S. Rajora	M.Sc., Ph.D.
6	Dr. Dipti K. Dodiya	M.Sc., Ph.D.

Highest Qualification	Ph.D.	M.Phil.	P.G.(M.Sc.)	Pursuing Ph.D.
No. of Faculty	06	NIL	1	2

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: ---NIL---

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sr No.	Name of Faculty	Title of the Project	Funding Agency	Grant Received	Duration
	NIL				

18. Research Centre / facility recognized by the University: - NO

19. Publications:

(A) Publication per faculty

(B) Number of papers published in peer reviewed journals by faculty and student: (B1: National / B2: International)

(C) Number of publications listed in International Database (For E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

(D) Monographs: A Book written on a Single Subject / Topic by Single Author

(E) Chapter in Books

(F) Books Edited

(G) Books with ISBN/ISSN numbers with details of publishers

(H) Citation Index

(I) SNIP

(J) SJR

(K) Impact factor

(L) h-index

Sr No	Name of Faculty	A	B1	B2	C	D	E	F	G	H	I	J	K	L
1	Dr. Yogesh S. Patel	25	0	25	25	0	0	0	12 LAP Nirav Prakashan				0-3.6	3
2	Sh. Rajendra R. Patel	0	0	0	0	0	0	0	1 Nirav Prakashan				0	0
3	Sh. Yogesh M. Patel	1	0	1	1	0	0	0	Nil				0	0
4	Dr. Kiran S. Nimavat	42	3	39	36	0	0	0	5 LAP Scholar Press				0-5.54	9
5	Dr. Umesh P. Tarpada	5	0	5	5	0	0	0	7 LAP				0.6-4.1	10
6	Dr. Deepen S. Gandhi	0	0	0	0	0	0	0	4 LAP				0	0
7	Sh. Vivek N. Dave	1	0	1	1	0	0	0	5 LAP Nirav Prakashan				1.83	0
8	Dr. Jayanti S. Rajora	0	0	0	0	1	13	0	3 LAP Sona Prakashan				0	0
9	Dr. Dipti K. Dodiya	4	0	4	4	0	0	0	5 LAP				0.75-2.43	9
10	Dr. Jignesh P. Dalvadi	1	0	1	1	0	0	0	4 LAP				2.34	0
11	Dr. Nirali S. Mewada	1	0	1	1	0	0	0	1 LAP				0	0
	Total	80	3	77	74	1	13	0	47					

Current h-index is mentioned here

20 Areas of consultancy and income generated: - ---NIL---

21 Faculty as members' in

a) National committees

b) International Committees

c) Editorial Boards….

Name of Faculty	Committee / Organization / Editorial Board	Type of Membership	Position	Year of Joining /Duration
Dr. Yogesh S. Patel	Indian Science Congress Association	Life time	Member	2014
Dr. Kiran S. Nimavat	NMR society, IISc. Banglore	Life time	Member	2015
Dr. Jayanti S. Rajora	NMR society, IISc. Banglore	Life time	Member	2015
Dr. Dipti K. Dodiya	NMR society, IISc. Banglore	Life time	Member	2015

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme: - **---NIL---**

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: - **---NIL---**

23. Awards / Recognitions received by faculty and students

Dr. J. S. Rajora: Best Poster presentation award at UGC sponsored National level seminar entitled "contemporary issues in environment" held on 23-24 Feb. 2016 at Swami Vivekanand Government P. G. College, Neemach, M. P.

24. List of eminent academicians and scientists / visitors to the department

Sr No	Eminent Academician / Scientist / Visitor's Name	Institute / Organization	Function	Date
1	Dr. M. M. Ray	Institute of Science & Technology for Advanced Studies & Research (ISTAR) Vallabh Vidyanagar-388120	State level workshop on current trends in chemical sciences	March 13-14, 2016
2	Dr. K. I. Patel	Institute of Science & Technology for Advanced Studies & Research (ISTAR) Vallabh Vidyanagar-388120		
3	Dr. S. H. Panjabi	Institute of Science & Technology for Advanced Studies & Research (ISTAR) Vallabh Vidyanagar-388120		
4	Dr. P. M. Udani	Institute of Science & Technology for Advanced Studies & Research (ISTAR)		

		Vallabh Vidyanagar-388120		
5	Dr. Gautam Chauhan	Sophisticated Instrumentation Centre for Applied Research & Testing (SICART) Vallabh Vidyanagar-388120		
6	Dr. Niraj H. Patel	Institute of Science & Technology for Advanced Studies & Research (ISTAR) Vallabh Vidyanagar-388120		
7	Dr. Amit J Thummar	Institute of Science & Technology for Advanced Studies & Research (ISTAR) Vallabh Vidyanagar-388120		

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National : - ---NIL---

b) International : - ---NIL---

26. Student profile programme / course wise: This is in regard with Q-4 about interdisciplinary course so

Name of Course / Programme (Refer Q.4)	Academic Year	Applications Received	Selected	Enrolled		Pass Percentage
				Male	Female	
B.Sc. (Chemistry)	2013-14	119	113	82	31	83.18 %
B.Sc. (Chemistry	2014-15	297	291	201	90	71.13 %
B.Sc. (Chemistry	2015-16	235	223	132	91	64.57 %

27. Diversity of Students

Name of the Course	% of Students from the Same State	% of Students from the Other States	% of Students from abroad
B.Sc. Semester: I & II	100% from the same state	---NIL---	---NIL---
B.Sc. Semester: III & IV	100% from the same state	---NIL---	---NIL---
B.Sc. Semester: V & VI	100% from the same state	---NIL---	---NIL---

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Don't have the data

29. Student progression

Student progression	Against % enrolled				
	2011-12	2012-13	2013-14	2014-15	2015-16
Students Enrolled in B.Sc. (Subject)	52	96	119	299	235
UG to PG*					
Employed: Campus selection Other than campus recruitment					
Employed: Other than campus recruitment					
Entrepreneurship/ Self-employment					

***Don't have the data**

30. Details of Infrastructural facilities in the Department

a) Library: **YES**
b) Internet facilities for Staff & Students: Y**ES**
c) Class rooms with ICT facility: **YES**
d) Laboratories:

Sr No	Laboratory	Intake Capacity
1	Sr. Laboratory	60
2	Jr. Laboratory	60
3	Physical Laboratory	60

31. Number of students receiving financial assistance from college, university, government or other agencies: - ---NIL---

32. Details on student enrichment programmes (special lectures/workshops/ seminar) with external experts

- Department of Chemistry organized a State Level Workshop on Current Trends in Chemical Sciences Organized by Government Science College Gandhinagar & Co-sponsored by UDISHA, Knowledge Consortium of Gujarat on March 13-14, 2016

33. Teaching methods adopted to improve student learning

- Through chemistry model
- Through LCD projector
- Explain chemistry structure through chemistry software e.g. chembiodraw, chemsketch etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Ozone day celebration
- Teacher's day celebration
- World Environment day celebration
- Science exhibition

35. SWOC analysis of the department and Future plans

- Strengths of Chemistry Department:
  - Highly qualified and dedicated faculty members
  - Faculty members actively engaged in research and enhancement of their knowledge
  - One of the laboratory assistants is M.Sc. (Chemistry) qualified
  - Three laboratories with required basic facilities
  - Strongly encouraging environment for constant improvement in teaching and for research
- Weakness of Chemistry Department:
  - Student-teacher ratio
  - Inadequate number of laboratory supporting staff

- Opportunities of Chemistry Department:
  - Giving industrial skill oriented practical training to the students for their better employment
  - Motivating & guiding the students to pursue post graduate and other higher study as well as competitive examination like NET, GATE, GPSC etc.

- Challenges of Chemistry Department:
  - Managing more than 55% of the total students who has opted for chemistry through CBCS with limited facilities and faculty members.
  - Improving performance of the students' despite of the limited faculty members

- Future Plans of Chemistry Department:
  - Improving laboratory facility

To arrange industrial in-house training for students through industrial collaboration

EVALUATIVE REPORT OF THE DEPARTMENT OF MATHEMATICS

1. **Name of the Department:** Mathematics
2. **Year of Establishment:** 1970
3. **Names of Programmes / Courses offered:** UG B.Sc. Mathematics
   (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)
4. **Names of Interdisciplinary Courses and the Departments/Units involved:** Nil
5. **Annual / Semester / Choice Based Credit System (Programme wise):**

Year	Programme	System
2011-12	F.Y. B. Sc.	CBCS
	S.Y. B. Sc.	Annual
	T.Y. B. Sc.	
2012-13	F.Y. B. Sc.	CBCS
	S.Y. B. Sc.	
	T.Y. B. Sc.	Annual
2013-14	F.Y. B. Sc.	CBCS
	S.Y. B. Sc.	
	T.Y. B. Sc.	
2014-15	F.Y. B. Sc.	CBCS
	S.Y. B. Sc.	
	T.Y. B. Sc.	
2015-16	F.Y. B. Sc.	CBCS
	S.Y. B. Sc.	
	T.Y. B. Sc.	

6. **Participation of the department in the courses offered by other departments:** NA
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:** Being a government college, no collaborative courses.
8. **Details of courses/programmes discontinued (if any) with reasons:** No any programme discontinued.
9. **Number of Teaching Posts: Present Situation as in January, 2017**

Designation	Sanctioned	Filled
Professor	NA	NA
Associate Professor	NA	NA
Assistant Professor	4	5
Adhyapak Sahayak	1	1

10. Faculty profile with name, qualification, designation, specialization: (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.)

Sr No	Name of Faculty	Qualification	Designation	Specialization	Experience	No. of Ph.D. Student Guided in last 4 years
1	Prof. B. K. Trivedi	M.Sc., B. Ed.	Asst. Prof.	Nil	21 Years	Nil
2	Dr. B.M. Patel	M.Sc., M. Phil. Ph. D., NET	Asst. Prof.	Analysis	6 Years	Nil
3	Prof. M. V. Mulchandani	M.Sc.,M. Phil., NET	Asst. Prof.	Analysis	6 Years	Nil
4	Prof. M. S. Amrutiya	M.Sc., B. Ed., NET	Asst. Prof.	Nil	6 Years	Nil
5	Prof. Y. M. Parmar	M.Sc.,M. Phil., NET	Asst. Prof.	Analysis	5 Years	Nil
6	Prof. K. R. Baleviya	M.Sc., NET	Adhyapak Sahayak	Nil	6 Months	Nil

11. List of senior visiting faculty:

Being a government college, no visiting faculty can be called.

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sem-II (0%), Sem-IV (50%), Sem-VI (20%) (Note: currently 2 staff members are on maternity leave.)

13. Student -Teacher Ratio (programme wise)

B.Sc. Semester: I & II: 35:1
B.Sc. Semester: III & IV: 10:1
B.Sc. Semester: V & VI: 15:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Academic Support Staff (Technical)	Sanction	Filled
Laboratory Assistant	NA	NA
Field Collector	NA	NA
Gas Mechanic	NA	NA
Store Keeper	NA	NA
Administrative Support Staff	NA	NA
Peon	Nil	Nil

15. Qualifications of teaching faculty with D.Sc. / D.Litt. / Ph.D. / M.Phil.:

Sr No	Name of faculty	Qualification
1	Dr. B.M. Patel	M.Phil., Ph.D.
2	Prof. M. V. Mulchandani	M. Phil.
3	Prof. Y. M. Parmar	M. Phil.

Highest Qualification	**Ph.D.**	**M.Phil.**	**P.G.(M.Sc.)**	**Pursuing Ph.D.**
No. of Faculty	1	2	3	1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

Sr No.	Name of Faculty	Title of the Project	Funding Agency	Grant Received	Duration
	Nil	**Nil**	**Nil**	**Nil**	**Nil**

18. Research Centre / facility recognized by the University: Nil

19. Publications:

(A) Publication per faculty
(B) Number of papers published in peer reviewed journals by faculty and student: (B1: National / B2: International)
(C) Number of publications listed in International Database (For E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
(D) Monographs: A Book written on a Single Subject / Topic by Single Author
(E) Chapter in Books
(F) Books Edited
(G) Books with ISBN/ISSN numbers with details of publishers
(H) Citation Index
(I) SNIP
(J) SJR
(K) Impact factor
(L) h-index

Sr No	**Name of Faculty**	**A**	**B1**	**B2**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**
1	Dr. B. M. Patel	9	0	9	7	0	0	0	0	0	0	0	0	0
2	Prof. Y. M. Parmar	1	0	1	1	0	0	0	0	0	0	0	0	0
	Total	10	0	10	8	0	0	0	0	0	0	0	0	0

20. Areas of consultancy and income generated: Nil

21. Faculty as members' in
a) National committees b) International Committees c) Editorial Boards….

Name of Faculty	Committee / Organization / Editorial Board	Type of Membership	Position	Year of Joining / Duration
Prof. M. S. Amrutiya	AICTE	Life time	Member	2012

22. Student projects: Nil

a) Percentage of students who have done in-house projects including inter departmental/programme: Nil

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil

23. Awards / Recognitions received by faculty and students:
Prof. B. K. Trivedi was a member of Board of Studies in Mathematics subject at Gujarat University, Ahmadabad from 2009 to 2014.

24. List of eminent academicians and scientists / visitors to the department: Nil

Sr No	Eminent Academician / Scientist / Visitor's Name	Institute / Organization	Function	Date
	Nil	Nil	Nil	Nil

25. Seminars/ Conferences/Workshops organized & the source of funding
a) National: Nil
b) International: Nil

26. Student profile programme / course wise:

Name of Course / Programme (Refer Q.4)	Applications Received	Selected	Enrolled		Pass Percentage
			Male	Female	
T.Y. / 2011-12	12	12	6	6	75%
T.Y./ 2012-13	29	29	16	13	72%
T.Y./ 2013-14	36	36	21	15	39%
T.Y. / 2014-15	64	64	31	33	40%
T.Y. /2015-16	84	84	44	40	61%

27. Diversity of Students

Name of the Course	% of Students from the Same State	% of Students from the Other States	% of Students from Abroad
B.Sc. Semester: I & II	98	2	0
B.Sc. Semester: III & IV	98	2	0
B.Sc. Semester: V & VI	98	2	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?
NA

29. Student progression:

Student progression	**Against % enrolled**				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Students Enrolled in B.Sc. (Subject)					
UG to PG	Approx. 51%	Approx. 51%	Approx. 51%	Approx. 51%	NA
Employed: Campus selection • Other than campus recruitment	NA	NA	NA	NA	NA
Employed: Other than campus recruitment	NA	NA	NA	NA	NA
Entrepreneurship/ Self-employment	NA	NA	NA	NA	NA

30. Details of Infrastructural facilities in the Department

a) Library:

b) Internet facilities for Staff & Students: Yes

c) Class rooms with ICT facility: Yes

d) Laboratories: NA

Sr No	**Laboratory**	**Intake Capacity**
	NA	NA

31. Number of students receiving financial assistance from college, university, government or other agencies: NA

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

- BISAG Lectures

33. Teaching methods adopted to improve student learning

- Using internet, projector, BISAG Lectures, Mathematical Models.
-

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- The Department visit "SFURTI Community Care Center" at Mehsana on 10/09/2011 to aware about AIDS and to understand their responsibility to the society.
- T.Y. B. Sc. Mathematics students teach mathematics to the children of slum area in sector 13.
- Students and Faculties of the department actively participate in NSS and other social activities organized by the college.

35. SWOC analysis of the department and Future plans:

- **Strengths of Mathematics Department:**
  - Full Staff from 2016
  - 70 % Qualified Staff (1 Ph.D., 1 Perusing Ph.D., 1 M.Phil. 3 M.Sc.)
  - Experienced Faculties
- **Weakness of Mathematics Department:**
  - Being a Government Institute, full staff is not filled permanently because of transfer of staff frequently happened.
  - Because of rural area students with weak academic record.
  - Because of semester system not enough time to complete the syllabus.
- **Opportunities of Mathematics Department:**
  - Because of full staff from year 2016 Dept. has opportunity to improve the departmental result.
  - Due to development of college infrastructure we have opportunity to improve teaching learning process by using that.
  - Due to full staff, we have opportunity to start PG programme and B. Sc. with computer science.
- **Challenges of Mathematics Department**:
  - Students with lower merit, then also we try our best to improve result.
  - Although no enough time to complete the syllabus we try to make foundation in mathematics.
  - With existing staff, we try to give our best.

- **Future Plans of Mathematics Department**:
  - Department Desire to start PG (M. Sc. Mathematics).
  - To start B. Sc. with computer science.

To make aware the students about NET and NBHM exams for research scholarship.

EVALUATIVE REPORT OF THE DEPARTMENT OF MICROBIOLOGY

1. **Name of the department:** Microbiology Department
2. **Year of Establishment:** 2006
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.):** B. Sc. Microbiology (UG)
4. **Names of Interdisciplinary courses and the departments/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise):**

Overall B. Sc. Microbiology Programme

	Semester-I / II	**Semester-III / IV**	**Semester-V / VI**
Foundation Course	General English	General English	General English
Core Courses Group	Microbiology/Botany/Chemistry Microbiology/Zoology/Chemistry (One core course of theory of each subject and one core course of practical of each subject)	Microbiology/Botany Microbiology/Zoology Microbiology/Chemistry (Two core courses of theory of each subject and one core course of practical of each subject)	Four (04) Core Courses of Microbiology Theory and One Core Course of Microbiology Practical in each semester.
Elective Course	Biodiversity (SEM-I) Environmental Science (SEM-II**)**	Public Health (SEM-III) Forensic Science (SEM-IV**)**	One Subject Elective Course In each semester.

B. Sc. Microbiology	Semester Wise Credits					
	SEM-I	SEM-II	SEM-III	SEM-IV	SEM-V	SEM-VI
Foundation Course	02	02	02	02	02	02
Core Theory Course	12	12	16	16	16	16
Core Practical Course	09	09	05	05	05	05
Elective Course	02	02	02	02	02	02
Credits / Semester	25	25	25	25	25	25
Total Credits	**25 x 06 = 150**					

6. Participation of the department in the courses offered by other departments:

Microbiology subject is being taught as subsidiary subject for B. Sc. Chemistry and Botany.

7. Courses in collaboration with other universities, industries, foreign institutions: Nil

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts (as on January-2017)

	Sanctioned	Filled
Professors	**00**	**00**
Associate Professors	**00**	**00**
Assistant Professor s	**05**	**03 Regular and 01 Adhyapak Sahayak (Temporary)**

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. C. C. Ambasana	M.Sc. Ph.D. (Microbiology)	Assistant Professor & Head	Yeast Biology & Molecular Microbiology	18 years	00
Dr. J. T. Thumar	M.Sc. Ph.D. (Microbiology)	Assistant Professor	Extremophiles and bioactive metabolites	15 years	01
Dr. A. A. Baakza	M.Sc. Ph.D. (Microbiology)	Assistant Professor	Siderophores	12 years	00
Dr. D. N. Adhyaru (Temporary)	M.Sc. Ph.D. (Microbiology)	Assistant Professor (Adhyapak Sahayak)	Enzymology	06 moths	00

11.List of senior visiting faculty: Nil

12.Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

B. Sc. Microbiology Programme

	Semester-I / II	Semester-III / IV	Semester-V / VI
Lectures Delivered	**00%**	**50%**	**20%**
Practical Classes Handled	**33%**	**33%**	**00%**

13. Student -Teacher Ratio (programme wise): 60:1 **(B. Sc. Microbiology)**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled (As on January – 2017)

Academic Support Staff (Technical)	**Sanction**	**Filled**
Laboratory Assistant	01	00
Field Collector	00	00
Gas Mechanic	00	00
Store Keeper	01	00
Administrative Support Staff		
Peon	02	02

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ MPhil / PG.

Sr. No.	Name of faculty	Qualification
1	Dr. C. C. Ambasana	M.Sc. Ph.D. (Microbiology)
2	Dr. J. T. Thumar	M.Sc. Ph.D. (Microbiology)
3	Dr. A. A. Baakza	M.Sc. Ph.D. (Microbiology)
4	Dr. D. N. Adhyaru	M.Sc. Ph.D. (Microbiology)

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications:

(A) Publication per faculty:

(B) Number of papers published in peer reviewed journals (B1 national / B2 international) by faculty and students:

(C) Number of publications listed in International Database (For E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.):

(D) Monographs:

(E) Chapter in Books:

(F) Books Edited:

(G) Books with ISBN/ISSN numbers with details of publishers:

(H) Citation Index:

(I) SNIP:

(J) SJR:

(K) Impact factor:

(L) h-index:

Sr No	Name of Faculty	A	B1	B2	C	D	E	F	G	H	I	J	K	L
1	Dr. C. C. Ambasana	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Dr. J. T. Thumar	03	00	03	00	00	01	00	04	00	00	00	1.32	08
3	Dr. A. A. Baakza	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Dr. D. N. Adhyaru	04	00	04	00	00	01	00	00	37	0.76	0.47	1.64	03
	Total	07	00	07	00	00	02	00	04	37	0.76	0.47	1.96	11

20. Areas of consultancy and income generated: Nil

21. Faculty as members' in

a) National committees

b) International Committees

c) Editorial Boards…. Nil

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/programme: Nil

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: Nil

23. Awards / Recognitions received by faculty and students:

- **Dr. D. N. Adhyaru**
  - **DST-INSPIRE Fellow** (IF-110126- JRF & SRF), MoST, New Delhi. (2012)
  - **Jawaharlal Nehru Memorial Fund- Meritorious Student Award**, New Delhi. (2011)

24. List of eminent academicians and scientists / visitors to the department

Sr No	Eminent Academician / Scientist / Visitor's Name	Institute / Organization	Function	Date/Month/Year
1	**Dr. S. J. Pathak**	Department of Biosciences, Saurashtra University – Rajkot, Gujarat	Former Associate Professor	January -2013
2	**Dr. Bhavesh Patel**	V.P & R.P.T.P. Science College – Vallabh Vidyanagar – Anand, Gujarat	Principal	April - 2014
3	**Dr. Sneal B. Bagathariya,**	Gujarat State Biotechnology Mission (GSBTM) – Gandhinagar, Gujarat	Sector Specialist	July - 2015

25.Seminars/ Conferences/Workshops organized & the source of funding

a) National: Nil

b) International: Nil

26. Student profile programme/course wise: (Data is of T.Y. B. Sc. Microbiology)

Name of the course/ programme	Year	Applications received	Selected	Enrolled		Pass Percentage
				Male	Female	
B. Sc. Microbiology	**2010-11**	**27**	**27**	**02**	**25**	**95%**
B. Sc. Microbiology	**2011-12**	**17**	**17**	**03**	**14**	**77%**
B. Sc. Microbiology	**2012-13**	**14**	**14**	**01**	**13**	**89%**
B. Sc. Microbiology	**2013-14**	**35**	**35**	**11**	**24**	**71%**
B. Sc. Microbiology	**2014-15**	**55**	**55**	**09**	**46**	**78%**
B. Sc. Microbiology	**2015-16**	**105**	**66**	**15**	**51**	**48.5%**
B. Sc. Microbiology (SEM-V)	**2016-17**	**39**	**39**	**09**	**30**	**47.0%**

27. Diversity of Students

Name of the Course	% of Students from the Same State	% of Students from the Other States	% of Students from Abroad
B.Sc. Semester: I & II	**97%**	**03%**	**00%**
B.Sc. Semester: III & IV	**97%**	**03%**	**00%**
B.Sc. Semester: V & VI	**99%**	**01%**	**00%**

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? Nil

29. Student progression

Student progression	**Against % enrolled**				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Students Enrolled in B.Sc. (Microbiology)	**17**	**14**	**35**	**55**	**66**
UG to PG	55%	45%	33%	60%	40%
Employed: Campus selection • Other than campus recruitment	-----	-----	-----	-----	-----
Employed: Other than campus recruitment	-----	-----	-----	-----	-----
Entrepreneurship/ Self-employment	-----	-----	-----	-----	-----

30. Details of Infrastructural facilities

a) Library: Nil

b) Internet facilities for Staff & Students: Wi-Fi internet facility is available for all

c) Class rooms with ICT facility: 02 Class Rooms (Intake capacity of each: 100 students)

d) Laboratories: 02 Laboratories (Intake capacity of each: 40 students)

31. Number of students receiving financial assistance from college, university, government or other agencies:

Department wise data is not available, but total number of college students receiving financial assistance from government is mentioned in SSR.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: Nil

33. Teaching methods adopted to improve student learning:

- Use of multimedia projector for power point presentation and to show subject related animations, videos, quiz etc.
- Seminar delivery by students on topics related to subject
- Class note preparation and experimental journal writing
- Preparation for spotting exercise and viva-voce

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Many students of microbiology department regularly participate in social/extension activities organized by NSS and NCC units of the college.

35. SWOC analysis of the department and Future plans

- **Strength:**

  Highly qualified staff, well equipped laboratories and class rooms with teaching aids.

- **Weakness:**

  Inadequate number of teaching and non-teaching staff members, high students-teacher ratio and weakness of students in learning microbiology in English.

- **Opportunity:**

  Talent pool of teachers and students can be used for doing research in basic and applied areas of microbiology.

- **Challenges:**
- To improve result (pass percentage) of student's efforts in all forms of examination.
- **Future plans**
  - To increase, number of teaching and non-teaching staff in the department
  - To involve undergraduate students in the research activities
  - To enhance extension activities and to increase departmental social responsibility

EVALUATIVE REPORT OF THE DEPARTMENT OF PHYSICS

1. **Name of the Department:** PHYSICS Department
2. **Year of Establishment:** 1970
3. **Names of Programmes / Courses offered: UG:** B.Sc. Physics
4. **Names of Interdisciplinary Courses and the Departments / Units involved not involved**

   At present, there is no provision of interdisciplinary courses as per Gujarat University set up.
5. **Annual / Semester / Choice Based Credit System (Programme wise)**

   Annual Pattern in B.Sc. Physics: From 1970 to May, 2011: As our college is affiliated with Gujarat University from the year of the establishment, our college and the department of physics was following the Annual Pattern for the B.Sc. Physics programme during 1970 to May, 2011.

   Semester / Choice Based Credit System: From June 2011, onwards: From June 2011 onwards, Semester and Choice Based Credit System (CBCS) was introduced gradually from the B.Sc. semester 1 as per the guidelines given by Gujarat University.

   B.Sc. Physics Programme Pattern:

Year	1970 - 2011	2011-12	2012-13	2013-14 onwards
F.Y. B.Sc.	Annual	Semester & CBCS (Semester: I & II)	Semester & CBCS (Semester: I & II)	Semester & CBCS (Semester: I & II)
S.Y. B.Sc.	Annual	Annual	Semester & CBCS (Semester: III & IV)	Semester & CBCS (Semester: III & IV)
T.Y. B.Sc.	Annual	Annual	Annual	Semester & CBCS (Semester: V& VI)

Semester, Course / Paper, Credit Structure in CBCS:

First Year: B.Sc. Semester I & II										
First Year B.Sc.	Courses (Group: PMC, PCM, MPC, CPM)									Total Credit
	T / P	Theory			Practical					
	Course	CC-1	CC-2	CC-3	CC-1	CC-2	CC-3	FC	EC	
Semester I	Paper	P 101	P 101	P 101	P 102	P 102	P 102	FC 101	EC 101	
	Credit	4	4	4	3	3	3	2	2	25
Semester II		P 103	P 103	P 103	P 104	P 104	P 104	FC 102	EC 102	
		4	4	4	3	3	3	2	2	25
Second Year: B.Sc. Semester III & IV										
Second Year B.Sc.		Courses (Group: PM, PC, MP, CP)								
	T / P	Theory				Practical				
	Course	CC - 1		CC - 2		CC-1	CC-2	FC	EC	
Semester III	Paper	P 201	P 202	P 201	P 202	P 203	P 203	FC 201	EC 201	
	Credit	4	4	4	4	2.5	2.5	2	2	25
Semester IV	Paper	P 204	P 205	P 204	P 205	P 206	P 206	FC 202		
	Credit	4	4	4	4	2.5	2.5	2	2	25
Third Year: B.Sc. Semester V & VI										
Third Year B.Sc.		Physics Courses								
	T / P	Theory					Pract.			
	Course	CC – 1				SEC	CC 1	FC		
Semester V	Paper	P 301	P 302	P 303	P 304	P 305	P 306	FC 301		
	Credit	4	4	4	4	2	5	2		25
Semester VI	Paper	P 307	P 308	P 309	P 310	P 311	P 312	FC 302		
	Credit	4	4	4	4	2	5	2		25

(CC: Core Course, FC: Foundation Course, EC: Elective Course, SEC: Subject Elective Course)

6. Participation of the department in the courses offered by other departments

- Physics subject is being taught as Core Course – 2 (CC – 2 / subsidiary subject) for B. Sc. Mathematics & B.Sc. Chemistry in Semester I to IV.
- Department has provided lab facility and conducted physics practical sessions for the students of Indian Institute of Teacher Education (IITE) during the initial phase of the establishment of IITE, Gandhinagar.
- Two faculty members (Mr. G. R. Patel & Dr. K. B. Zankat) have worked as visiting faculty to teach PG courses in post graduate physics department of Gujarat Arts and Science College, Ahmedabad.

7. Courses in collaboration with other universities, industries, foreign

institutions, etc.: Nil

8. Details of courses / programmes discontinued (if any) with reasons: NA

9. Number of Teaching Posts: Present Situation as in January, 2017

Designation	Sanctioned	Filled
Professor	1	1 (Principal)
Associate Professor	---	---
Assistant Professor	10	5
Adhyapak Sahayak (Temporary)	---	1

10. Faculty profile with name, qualification, designation, specialization:

Sr No	Name of Faculty	Qualification	Designation	Specialization	Experience In Years	No. of Ph.D. Student Guided in last 4 years
1	Dr. K. G. Chhaya	M.Sc., Ph. D, L.L.B.	Principal	Nuclear Physics	29 Years	
2	Mrs. M. S. Baxi	M.Sc.	Assistant Professor	Solid State Electronics	25 Years	-
3	Mr. G. R. Patel*	M.Sc.*	Assistant Professor	Physics	14 Years	-
4	Dr. P. A. Vadher	M.Sc., Ph.D.	Assistant Professor	Applied Mathematics	20 Years	-
5	Dr. K. B. Zankat	M.Sc., Ph.D., D.C.S	Assistant Professor	Material Science	20 Years	-
6	Dr. C. K. Chauhan	M.Sc., M.Ed., Ph.D.	Assistant Professor	Crystal Growth	19 Years, 10 Months (UG 14 + 5 Y 10 M @ GCERT)	-
7	Dr. M.Y. Barot	M.Sc., M.Phil., Ph.D.	*Adhyapak Sahayak* (Temporary Contractual)	Atomic and Molecular Physics	3 Years	-

* Pursuing Ph.D.

11. List of senior visiting faculty N.A.

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

B. Sc. Physics	Semester: I & II	Semester: III & IV	Semester: V & VI	Total	Total (L + P)
Lectures	0.83 %	0.83 %	2.48 %	4.13%	16.53 %
Practicals	7.44 %	4.96 %	0 %	12.40 %	

13. Student -Teacher Ratio (Programme wise)

Academic Year	Number of B.Sc. Physics Students				Number of Faculties	Student Teacher Ratio S : T
	F.Y. B.Sc./ Semester I & II	S.Y. B.Sc./ Semester III & IV	S.Y. B.Sc./ Semester V & VI	Total		
2011-12	191	114	14	319	2 + 1 (Pri)	128 : 1
2012-13	478	155	23	656	6 + 1 (Pri)	101 : 1
2013-14	290	279	28	597	7 + 1 (Pri)	80 : 1
2014-15	343	261	67	671	7 + 1 (Pri)	89 : 1
2015-16	232	310	37	579	5 + 1 (Pri)	105 : 1
2016-17	207	220	55	482	6 + 1 (Pri)	74 : 1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Academic Support Staff (Technical)	**Sanction**	**Filled**
Laboratory Assistant	3	2
Peon	3	2

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil.:

Sr No	Name of faculty	Qualification
1	Dr. K. G. Chhaya (Principal)	M.Sc., Ph.D., L.L.B.
2	Dr. P. A. Vadher	M.Sc., Ph.D.
3	Dr. K. B. Zankat	M.Sc., Ph.D., D.C.S
4	Dr. C. K. Chauhan	M.Sc., M.Ed., Ph.D.
5	Dr. M. Y. Barot	M.Sc., M.Phil., Ph.D.

Highest Qualification	**Ph.D.**	**M.Phil.**	**P.G. (M.Sc.)**	**Pursuing Ph.D.**
No. of Faculty	5	-	2	1
Percentage of Faculty	71.43 %	-	28.57 %	-

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre / facility recognized by the University: Not Applicable

19. Publications:

(A) Publication per faculty
(B) Number of papers published in peer reviewed journals by faculty and student: (B1: National / B2: International)
(C) Number of publications listed in International Database (For E.g.: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
(D) Monographs: A Book written on a Single Subject / Topic by Single Author
(E) Chapter in Books
(F) Books Edited
(G) Books with ISBN/ISSN numbers with details of publishers
(H) Citation Index
(I) SNIP
(J) SJR
(K) Impact factor
(L) h-index

Faculty wise details of Q. 19 (A to L): During Entire Career of Faculty Member

Sr No	Name of Faculty	A	B1	B2	C	D	E	F	G	H	I*	J*	K*	L#
1	Dr. K. G. Chhaya	8	1	7										
2	Mrs. M. S. Baxi	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Mr. G. R. Patel	3	1	2	-	-	2	-	-	-	0-0.15	0-0.198	-	-
4	Dr. P. A. Vadher	21	3	18	20	-	-	-	-	-				
5	Dr. K. B. Zankat	12	4	8	11	1	-	-	1	-	-	-	0-5	3
6	Dr. C. K. Chauhan	13	5	8	10		10		1		0-2.22	0-0.897	0-2.27	6
7	Dr. M. Y. Barot	7	2	5	4	-	-	-	-	-	-	-	0-3.16	3
	Total	64	16	48	45									

(*For SNIP, SJR, IF range is mentioned, #Current h-index: Mentioned as per Google Scholar)

Faculty wise details of Q. 19 (A to L): During Last Five Years: 2011-12, 2012-13, 2013-14, 2014-15, 2015-16 along with current year 2016-17

Sr No	Name of Faculty	A	B1	B2	C	D	E	F	G	H	I*	J*	K*	L#
1	Dr. K. G. Chhaya	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Mrs. M. S. Baxi	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Mr. G. R. Patel	3	1	2	-	-	-	-	-	-	0-0.15	-	-	-
4	Dr. P. A. Vadher	6	1	5	6									
5	Dr. K. B. Zankat	4	-	4	4	1	-	-	1	-	-	-	0-5	3
6	Dr. C. K. Chauhan	5	2	3	4	-	-	-	1		0-1.15	0-0.752	0-1.46	6
7	Dr. M. Y. Barot	7	2	5	5	-	-	-	-	-	-	-	0-3.16	3
	Total	25	6	19	19									

(*For SNIP, SJR, IF range is mentioned, #Current h-index: Mentioned as per Google Scholar)

20. Areas of consultancy and income generated **N.A.**

21. Faculty as members in:

a) National committees

b) International Committees

c) Editorial Boards

- 6 Faculty members are life time embers of Indian Association for Physics Teachers (IAPT)
- 1 Faculty member is life time member Indian Physics Association (IPA), C/o Bhabha Atomic Research Centre, Trombay, Mumbai

Name of Faculty	Committee / Organization / Association / Editorial Board	Type of Membership	Position	Year of Joining/ Duration
Dr. K. G. Chhaya	IAPT	Life Member	Member	Since 2001
	IPA	Life Member	Member	Since 1986
	Senate, VNSGU	Senate member	Member	2009 - 2016
	Faculty of Science,	Member	Member	2009 -

	VNSGU			2016
	Interview Board for Selection of Lecturer in Colleges of Gujarat	Nominee of the Commissioner of Higher Education, Gujarat		
Mrs. M. S. Baxi	IAPT	Life Member	Member	Since 2013
Mr. G. R. Patel	IAPT	Life Member	Member	Since 2013
Dr. P. A. Vadher	IAPT	Life Member	Member	
Dr. K. B. Zankat	IAPT	Life Member	Member	Since 2003
	Gujarat State Government College Teachers Association		Treasurer	2005 - 2010
			General Secretary	Since 2010 to till date
Dr. C. K. Chauhan	IAPT	Life Member	Member	Since 2003
	Materials Research Society, Singapore	Member	Member	2009 - 2013

22. Student projects N.A.

a) **Percentage of students who have done in-house projects including inter departmental / programme**

b) **Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies:** NIL

23. Awards / Recognitions received by faculty and students

- **Dr. K. G. Chhaya: Recognition as a Member of Delegation of Government of Gujarat:** Dr. K. G. Chhaya was nominated by Education Department, Government of Gujarat and participated as a member of delegation of Government of Gujarat to study the best academic practices in Universities of United Kingdom during 1 - 8 December, 2013.
- **Dr. P. A. Vadher: Recognition as a Member of Delegation of Government of Gujarat:** Dr. P. A. Vadher was nominated by Education Department, Government of Gujarat and participated as a member of delegation of Government of Gujarat to study the best academic practices in Universities of United Kingdom during 1 - 8 December, 2013.
- **Dr. C. K. Chauhan: Invited Speaker in International Conference ICMAT – 2011 at Singapore:** Dr. C. K. Chauhan participated as an **Invited Speaker** and presented talk on "*In-vitro* crystallization, characterization and growth Inhibition study of Urinary Type Struvite crystals" in an International Conference on Materials for Advanced Technologies-2011 (ICMAT-2011) at **Singapore** from 26th June to 1st July, 2011. He has also **chaired a session FF3 of Symposium - FF: Organic & Biological Crystallization** during the conference.
- **Dr C. K. Chauhan: Certificate of Appreciation From GSGCTA:** Certificate of appreciation for the outstanding performance in the field of Book Publication, Research Paper Publications in International Journals & Participation in International Conferences from the hands of *Hon.*

Bhupendrasinh Chudasma Saheb, Education Minister of Gujarat in October 2013 on behalf of *Gujarat State Government College Teachers Association*.

- **Dr. M. Y. Barot: Best Oral Presentation Award:** In National Conference Electron Collision processes in atomic & Molecular Physics" held at VP & RPTP Science College, VVNagar during 5 - 8 March, 2013.

24. List of eminent academicians and scientists / visitors to thedepartment

Sr No	Eminent Academician / Scientist / Visitor's Name	Institute / Organization	Function	Date
1	Dr. Rajmal Jain	Rtd. Scientist, PRL; Dean, KSV University, Gandhinagar	Science Exhibition	19/3/2015
2	Dr. Ananth Krishnamurthy	Kochi University	Physics Stage Show	18/10/2016
3	Mrs. Parvathi Krishnamurthi		Physics Stage Show	18/10/2016
4	Dr Kamalnayan Joshipura	Retired Professor, SP University, VVnagar	Annual IAPT Pre-Convention Activity	18/10/2016
5	Dr. T. C. Pandya	Associate Professor, St. Xavier's College, Ahmedabad & Secretary, IAPT	Annual IAPT Pre-Convention Activity	18/10/2016

25. Seminars / Conferences / Workshops organized & the source of funding

a) State

- Department has played important role in organizing a ***"State Level Science Exhibition"*** in the institute during 19 - 20 March, 2015. Total 33 working models and 58 posters were presented by the students.

b) National

- Department has organized ***"Stage Show on Physics Experiments"*** in the college as a pre-conventional activity as a part of XXXI Annual IAPT National Convention – 2016 on 18th October 2016.
- Mr G. R. Patel has served as a Co-convener of the ***"XXXI Annual IAPT National Convention - 2016 & Symposium on Excellence in Research"*** jointly organized by Indian Association of Physics Teachers (IAPT), IAPT RC-7 Gujarat & KSV University during 20 – 22 October 2016 held at KSV University, Gandhinagar.

- Dr. K. B. Zankat and Dr. C. K. Chauhan has served as members of organizing committee of the ***"XXXI Annual IAPT National Convention - 2016 & Symposium on Excellence in Research"*** jointly organized by Indian Association of Physics Teachers (IAPT), IAPT RC-7 Gujarat & KSV University during 20 – 22 October 2016 held at KSV University, Gandhinagar.

c) International: Nil

26. Student profile programme / course wise:

Name of Course / Programme	Academic Year	Applications Received	Selected	Enrolled		Pass Percentage
				Male	Female	
B.Sc. (Physics)	2010-11	15	15	7	8	46.66 %
B.Sc. (Physics)	2011-12	14	14	9	5	64.28 %
B.Sc. (Physics)	2012-13	22	22	12	10	77.27 %
B.Sc. (Physics)	2013-14	28	26	16	10	23.08 %
B.Sc. (Physics)	2014-15	68	68	39	29	60.00 %
B.Sc. (Physics)	2015-16	37	37	23	14	**24.32 %** **(10.81 % W-Held O127 Due to late result of Sem 4)**
B.Sc. (Physics) Semester: 5	2016-17 Nov. 2016	55	55	38	17	53.06 %

27 Diversity of Students

Name of the Course	% of Students from the Same State	% of Students from the Other States	% of Students from Abroad
B.Sc. Semester: I & II	100%	-	-
B.Sc. Semester: III & IV	100%	-	-
B.Sc. Semester: V & VI	100%	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? N. A.

29.Student progression

Student progression	**Against % enrolled**				
	2011-12	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Students Enrolled in B.Sc. (Physics)	14	22	26	68	37
UG to PG	57.14 %	13.64 %	19.23 %	27.94 %	8.10 %
Employed: Campus selection • Other than campus recruitment	-	-	-	-	-
Employed: Other than campus recruitment*	-	-	-	-	-
Entrepreneurship/Self-employment*	-	-	-	-	-

* Record / Data is not available

30.Details of Infrastructural facilities in the Department

a) Library:

- College Central Library facility is available
- N-LIST INFLIBNET Username & Passwords are provided to each of the facility member for the use of e-resources

b) Internet facilities for Staff & Students:

- Wi-Fi internet facility is available for Staff & Students

c) Class rooms with ICT facility:

- Department uses the Classroom with ICT facility available in the college (Like SANDHAN/BISAG Room having digital podium and multimedia projector, Conference Room)
- Department also have a laptop, multimedia projector & Screen

d) Laboratories: 2

Sr No	**Laboratory**	**Intake Capacity**
1	B.Sc. Sem I / II Physics Lab: Room No 28	60
2	B.Sc. Sem III/IV & V/VI Physics Lab: Room No 34 A	60

31. Number of students receiving financial assistance from college, university, government or other agencies

Department wise data is not available, but College Administrative office keeps record of total number of college students receiving financial assistance in the form of

scholarship from government. Data is mentioned in SSR.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

- **Field Visit to FCIPT:** Department has conducted One Day Field Visit to Facilitation Centre for Industrial Plasma Technologies (FCIPT), Gandhinagar for Third Year B.Sc. Physics students on 3rd September, 2014. In order to encourage and motivate students towards research, scientists at FCIPT have shown all the ongoing research work at FCIPT and demonstrated all the sophisticated instruments over there.
- **Special Lecture:** A Guest lecture on Astrophysics of Dr. Rajmal Jain, Ex Scientist, PRL & Present Dean, KSV University was organized on 18/03/2015
- **Science Exhibition:** Department has taken a lead in organizing Science Exhibition Programme in the college on 18 – 19 March, 2015.
- **Participation in National Seminar:** Along with selected third year B.Sc. Physics students, faculty members have participated in ***"One Day National Seminar on Light Scattering and Fabry Perot Interferometry"*** organized by Physics Department, Gujarat Arts & Science College, Ahmedabad on 27th August, 2016.
- **Stage Show on Physics Experiments**: Department has organized Dr. Ananth Krishnamurthy's ***"Stage Show on Physics Experiments"*** in the college as a pre-conventional activity as a part of XXXI Annual IAPT National Convention – 2016 on 18th October 2016.
- **Students' Seminar:** Every year as a part of continuous internal evaluation, department conducts Students' Seminar specially for B.Sc. Semester 5 students, in which every student has to give seminar on various subjects / topics of their choice for 15 minutes. In order to enrich students' knowledge, every seminar is followed by question – answer session and interaction among faculty members and students.
- **NGPE Exam:** Department of Physics encourages physics students to participate in the National level examination National Graduate Physics Examination (NGPE) which is conducted by Indian Association of Physics Teachers – Dehradun, every year. Faculty members provide necessary guidance and material to those students appearing in NGPE.

- **Participation in Placement Drive of INFOSYS:** Final Semester Students from Physics (& Mathematics) discipline having good academic records were enrolled and encouraged to participate in the campus interview conducted by INFOSYS at Gujarat University campus. Necessary guidance and material was provided to the students for the preparation. 22 students appeared in online test conducted by INFOSYS at Gujarat University on 30/1/2017.
- **Participation in National Essay Competition of DAE:** Department also encourages students to participate in the National Essay Competition organized by Department of Atomic Energy.
- **Participation in CPEx-2017:** Recently, one team comprising of two students of B.Sc. Physics Semester 6 from our college have participated in Competition on Physics Experiments jointly organized by IAPT RC 7 Gujarat and St. Xavier's college, Ahmedabad.
- The students are encouraged to participate in seminars and conferences organized by various institutes.

33. Teaching methods adopted to improve student learning

- Traditional Chalk and Board method
- Use of ICT for effective teaching – learning process
- Teaching through Power Point Presentations & Multi-media Projectors
- Practical Demonstration & hands on experience to perform experiments
- Provide necessary course materials
- Paper wise assignments
- Students' seminar (Specially for B.Sc. Physics Semester – 5 & 6 students)
- Open Book Test / Assignments for Slow learners
- Remedial Class for slow learners
- Field / Institutional Visit

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Many students from physics department regularly participate in social/extension activities organized by the college.

35. SWOC analysis of the department and Future plans

- **Strengths of Physics Department:**

- Well Qualified, Experienced and Enthusiastic Faculty Members
- Adequate Space of Laboratory
- Active involvement of staff in various academic, co-curricular and extra-curricular activities in college
- Use of ICT in teaching-learning process
- Faculty members regularly update their knowledge by participating in RCs, FIPs, FDPs, STCs, conferences, workshops, etc.

- **Weakness of Physics Department:**
  - High Student – Teacher Ratio
  - Shortage of teaching and non-teaching staff
- **Opportunities of Physics Department:**
  - There are more opportunities to connect with the nearby institutes of repute like IPR, PRL and ISRO.
  - Undertake minor / major research projects
- **Challenges of Physics Department:**
  - Very poor student – teacher ratio
  - Time constraints in Semester based CBCS system
  - Most of the students are from rural areas
  - Bridging the gap between advanced and slow learners
  - To improve academic results of students
- **Future Plans of Physics Department**
  - Expansion of infrastructure of the department
  - To set up departmental library
  - To arrange more guest / experts' lectures for students
  - Publish books and research papers
  - To apply for minor / major research project

GOVERNMENT SCIENCE COLLEGE

Sector – 15, Gandhinagar – PIN-382016

NAAC Accredited – B (CGPA-2.53)

Tel. : 079-23222352

Fax. : 079-23222352

Ref. No. :

Date:

Certificate

I, the undersigned, certify that the data entered in this SSR –Self-Study Report is correct and genuine as on today to the best of my knowledge.

I further, certify that this is an original work carried out after discussions among staff members and not published anywhere.

It is also certified that all necessary documents and proof of any information mentioned in this SSR will be provided to peer team during their visit to us during assessment through NAAC.

Date:
Place: Gandhinagar
-

Dr. K G Chhaya
Government Science College
Gandhinagar

ANNEXURES

LIST OF ABBREVIATIONS

AAA	:	**Academic and Administrative Audit**
AIDS	:	**Acquired Immune Deficiency Syndrome**
AMC	:	**Annual Maintenance Contract**
ANO	:	**Associate NCC Officers**
API	:	**Academic Performance Indicators**
B.Sc.	:	**Bachelor Of Science**
BISAG	:	**Bhaskaracharya Institute For Space Applications And Geo-Informatics**
BLC	:	**Basic Leadership Camp**
CAS	:	**Career Advancement Scheme**
CATC	:	**Combined Annual Training Camps**
CBCS	:	**Credit Based Choice System**
CC	:	**Core Course**
CCC+	:	**Course On Computer Concepts**
CCTV	:	**Closed-Circuit Television**
CD	:	**Compact Disc**
CGPA	:	**Cumulative Grade Points Average**
CIA	:	**Continuous Internal Assessment**
CNG	:	**Compressed Natural Gas**
CPD	:	**Continuous Professional Development**
CR	:	**Confidential Report**
CWDC	:	**College Women Development Cell**
DELL	:	**Digital English Language Lab**
DSP	:	**Deputy Superintendent Of Police**
DST	:	**Department of Science and Technology**
DTE	:	**Directorate of Technical Education**
DTH	:	**Direct To Home**
DVD	:	**Digital Video Disc**
EDI	:	**Entrepreneurship Development Institute Of India**
F. Y.	:	**First Year**
FC	:	**Foundation Course**
FCIPT	:	**Facilitation Centre For Industrial Plasma & Training**
FDP	:	**Faculty Development Programme**
FIP	:	**Faculty Improvement Programme**
FSL	:	**Forensic Science Laboratory**
GATE	:	**Graduate Aptitude Test For Engineering**
GB	:	**Gigabyte**
GCERT	:	**Gujarat Council For Educational Research And Traning**
GEER	:	**Gujarat Ecological Education And Research Foundation**
GES	:	**Gujarat Education Service**
GOG	:	**Government of Gujarat**
GPCB	:	**Gujarat Pollution Control Board**
GPSC	:	**Gujarat Public Service Commission**
GS	:	**General Secretary**
GSBTM	:	**Gujarat State Biotechnology Mission**
GSRTC	▪	**Gujarat State Road Transport Corporation**

GU	:	**Gujarat University**
GUAC	:	**Gujarat University Admission Committee**
H. S. C.	:	**Higher School Secondary Certificate**
HEA's	:	**Higher Education Act**
HIV	:	**Human Immunodeficiency Virus**
HoDs	:	**Head of Department**
HR	:	**Human Resource**
HRDC	:	**Human Resource Development Centre**
IAPT	:	**Indian Association Of Physics Teachers**
ICMAT	:	**International Conference On Materials For Advanced Technologies**
ICT	:	**Information and Communication Technology**
IETE	:	**Institution of Electronics and Telecommunication Engineers**
IFFCO	:	**Indian Farmers Fertilizer Cooperative Limited**
IGC	:	**Inter-Group Competition**
IIHT	:	**Indian Institute of Hardware Technology**
IITE	:	**Indian Institute of Teachers Education**
INFLIBNET	:	**Information And Library Network**
IPR	:	**Institute for Plasma Research**
IQAC	:	**Internal Quality Assurance Cell**
IQAS	:	**International Qualifications Assessment Service**
ISBN	:	**International Standard Book Number**
ISRO	:	**Indian Space Research Organization**
ISSN	:	**International Standard Serial Number**
ISTAR	:	**Institute of Science & Technology For Advanced Studies & Research**
Jr.	:	**Junior**
KCG	:	**Knowledge Consortium of Gujarat**
KSV	:	**Kadi Sarva Vidyalaya**
L & T	:	**Larsen & Tubro**
LCD	:	**Liquid Crystal Display**
LED	:	**Light Emitting Diode**
LR	:	**Ladies Representative**
M. Phil.	:	**Master of Philosophy**
MHRD	:	**Ministry of Human Resource Department**
MoU	:	**Memorandum of Understanding**
NAAC	:	**National Assessment And Accreditation Council**
NCC	:	**National Cadet Corp**
NET	:	**National Eligibility Test**
NGO	:	**Non-Government Organization**
NGPE	:	**National Graduate Physics Examination**
NIC	:	**National Informatics Centre**
N-LIST	:	**National Library And Information Services Infrastructure For Scholarly Content**
NPTEL	:	**National Programme On Technology Enhanced Learning**
NSS	:	**National Service Scheme**
OBC	:	**Other Backward Classes`**
OCHE	:	**Office Of Commisnerate Higher Education**
OHP	:	**Over Head Projector**
OJAS	:	**Online Job Application System**

OP	:	**Orientation Programme**
OPAC	:	**Online Public Access Catalog**
P.G.	:	**Post Graduate**
PBAS	:	**Performance Based Appraisal System**
Ph.D.	:	**Doctor Of Philosophy**
PPT	:	**PowerPoint Presentation**
PRL	:	**Physical Research Lab**
PSF	:	**Professional Standard Frame Work**
PTI	:	**Physical Training Instructor**
PWD	:	**Public Works Department**
RC	:	**Refresher Course**
RDC	:	**Republic Day Camp**
RO	:	**Reverse Osmosis**
RUSA	:	**Rashtriya Uchchatar Shiksha Abhiyan**
S. Y.	:	**Second Year**
SAR	:	**Self-Assessment Report**
SC	:	**Scheduled Cast**
SCOPE	:	**Society for Creation of Opportunity Through Proficiency In English**
SEBC	:	**Socially And Educationally Backward Classes**
SICART	:	**Sophisticated Instrumentation Centre For Applied Research And Testing**
SLET	:	**State Level Eligibility Test**
SOUL	:	**Software For University Libraries**
Sr.	:	**Senior**
SRC	:	**Student Representative Council**
ST	:	**Schedule Tribe**
STC	:	**Short Term Course**
T. Y.	:	**Third Year**
U.G.	:	**Under Graduate**
UGC	:	**University Grants Commission**
UNESCO	:	**United Nations Educational, Scientific And Cultural Organization**
UPSC	:	**Union Public Service Commission**
WI-FI	:	**Wireless Fidelity**
YRC	:	**Youth Recreation Club**

NAAC accreditation certificate

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद
विश्वविद्यालय अनुदान आयोग का स्वयत्त संस्थान
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

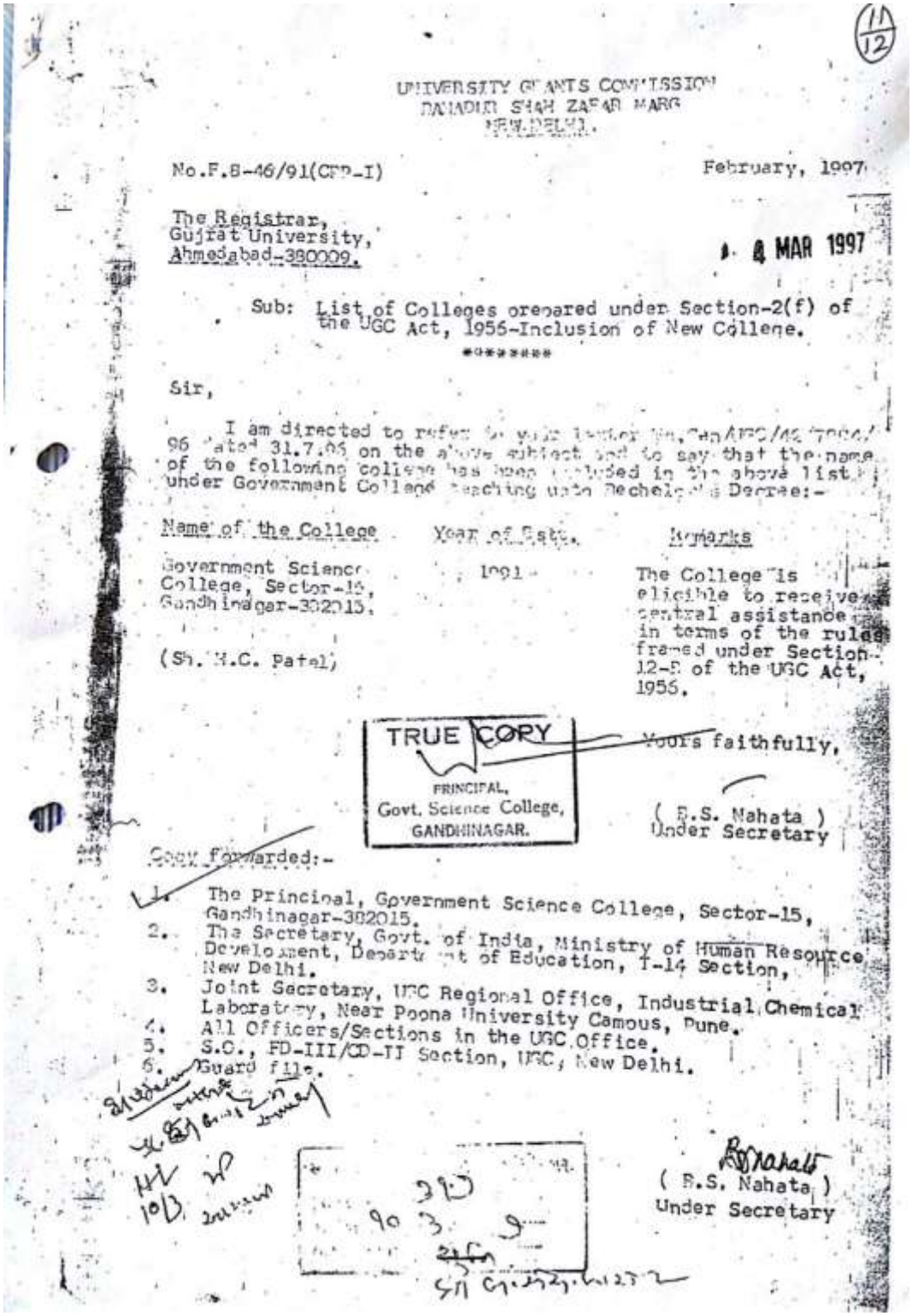
The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the
Government Science College
Sector - 15, Gandhinagar, affiliated to Gujarat University, Gujarat as
Accredited
with CGPA of 2.53 on four point scale
at B grade
valid up to March 27, 2015

Date : March 28, 2010

Director

EC/52/A & A/41

UGC 2f and 12b Certificate



(11/12)

UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI.

No.F.8-46/91(CPP-I) February, 1997

The Registrar,
Gujrat University,
Ahmedabad-380009.

4 MAR 1997

Sub: List of Colleges prepared under Section-2(f) of the UGC Act, 1956-Inclusion of New College.

****

Sir,

I am directed to refer to your letter No.Gen/UGC/42/7984/96 dated 31.7.96 on the above subject and to say that the name of the following college has been included in the above list under Government College teaching upto Bechelor's Degree:-

Name of the College	Year of Estt.	Remarks
Government Science College, Sector-15, Gandhinagar-382015. (Sh. H.C. Patel)	1991	The College is eligible to receive central assistance in terms of the rules framed under Section 12-B of the UGC Act, 1956.

TRUE COPY
PRINCIPAL,
Govt. Science College,
GANDHINAGAR.

Yours faithfully,

(B.S. Nahata)
Under Secretary

Copy forwarded:-

1. The Principal, Government Science College, Sector-15, Gandhinagar-382015.
2. The Secretary, Govt. of India, Ministry of Human Resource Development, Department of Education, T-14 Section, New Delhi.
3. Joint Secretary, UGC Regional Office, Industrial Chemical Laboratory, Near Poona University Campus, Pune.
4. All Officers/Sections in the UGC Office.
5. S.O., FD-III/CD-II Section, UGC, New Delhi.
6. Guard file.

(B.S. Nahata)
Under Secretary

SCHEDULE FOR DOORS, WINDOWS AND VENTILATORS.

TYPE	WIDTH	HEIGHT	CILL	LINTEL	DESCRIPTION	LOCATION
D	250	270	-	285	FULLY GLAZED ALUMINUM DOOR PARTLY FIXED AT TOP AND ON BOTH SIDES & PIVOTED DOUBLE SHUTTERS WITH FLOOR SPRINGS THE FRAME & SHUTTER SHALL BE FABRICATED FROM STANDARD EXTRUDED HOLLOW ALLUMINIUM SECTIONS COLOUR ANODISED & PANELLING SHALL BE OF 5MMTH. BRONZE COLOUR TINTED FLOAT GLASS OF MODI GUARD OR AS EQUIVALENT MAKE WITH NECESSARY FICTURES & FASTENING. THE VERTICAL FRAME SECTIONS SHALL BE EMBEDED WITH NON TEAK WOOD.	MAIN ENTRANCE DOOR.
D1	178.5	270	-	285	DOOR HAVING PARTLY FIXED 5MM. TH. TRANSPARENT (FLOAT) GLASS GLAZING AT TOP & POWERED COATED - COLOUR ANODIZED STANDARD PRESSED METAL STEEL SECTION OF 825 SMM. X 125MM. X 75MM. (18 GAUGE) & ZINC COATED HINGES & FACTORY MADE FLUSHED DOOR SHUTTER FABRICATED FROM 25MM. TH. SOLID CORE, MALAMINE FACED THREE LAYRED RESIN, HAVING LAMINATION DECORATIVE ON BOTH SIDES STAMPED IS 12823 GRADE ONE, TYPE ONE (FROM COMPANY HOLDING I.C. FOR MINIMUM 5 YEARS) OF NOVAPAN MAKE OR EQUI. & FIXING AROUND THE DOOR U TYPE 2MM. TH. 35MM. X25MM. SPECIAL SHAPED MOULDED COLOURED ANODIZED ALL BEADING, PROPERLY SECURWED BY 3MM.X 10MM. TH. M.S. RUNNERS-PLATE & EDGES OF PARTICAL BOARD SEALED WITH WATER RESISTANCE PAINT.	ALL LAB'S , AUDIOVISUL ROOM , H.O.D. CLASS ROOM, COMPUTER LAB. BEADING PROFILE
D2	125	270	-	285	AS PER D2	H.O.D, TOILETS, STAFF ROOM, STORE
D3	125	270	-	285	AS PER D2	H.O.D, TOILETS, STAFF ROOM, STORE
D4	100	270		285	SINGLE SHUTTER F.R.P. DOOR FRAME 100x50 MM SIZE F.R.P. FRAME, 28MM TH FULLY DEPRESSED PANEL SHUTTER WITH STEEL HINGES FINISH ENAMEL PAINT AS APPROVED BY THIS OFFICE.	ROOMS'
D5	80	210		285	SINGLE SHUTTER F.R.P. DOOR FRAME 100x50 MM SIZE F.R.P. FRAME, 28MM TH FULLY DEPRESSED PANEL SHUTTER WITH STEEL HINGES FINISH ENAMEL PAINT AS APPROVED BY THIS OFFICE.	TOILETS
W1	410	195	90	285	EXTRUDED ALUMINIUM WINDOW HAVING EXTRUDED ALUMINIUM COLOUR ANODIZED SECTION FRAME WITH SLIDING SHUTTERS WITH 5 MM. TH. TRANSPERANT BRONZE COLOUR TINTED FLOAT GLASS PANEL OF MODI GUARD OR EQUIVALENT MAKE WITH POWDER COATED ALUMINIUM FITTINGS AND FICTURES AND TRANSPERANT SILICON SEALENT GLASS FRAME TO FRAME AS/DETAIL	ALL LAB'S, CLASS ROOM ,
W2	350	165	90	285	WINDOW SAME AS W1	AUDIO VISUAL ROOM, COMPUTOR LAB.
W3	250	195	90	285	WINDOW SAME AS W1	AUDIO VISUAL ROOM, COMPUTOR LAB.
W4	220	195	90	285	WINDOW SAME AS W1	AUDIO VISUAL ROOM, COMPUTOR LAB.
W4A	220	120	SKY LIGHT	SKY LIGHT	WINDOW SAME AS W1	
W5	170	165	90	285	WINDOW SAME AS W1	
W6	90	195	90	285	WINDOW SAME AS W1	
V1	180	75	90	210	STANDARD EXTRUDED COLOUR ANODIZED ALLUMINIUM FRAME WITH 4MM. TH. COLOUR TINTED GLASS ,HEAVY GAUGE OPENABLE ALUMINIUM LOUVERS.	TOILETS
V2	120	105	135	210	STANDARD EXTRUDED COLOUR ANODIZED ALLUMINIUM FRAME WITH 4MM. TH. COLOUR TINTED GLASS ,HEAVY GAUGE OPENABLE ALUMINIUM LOUVERS.	TOILETS
V3	120	75	135	210	SAME AS V1	
V4	80	75	135	210	SAME AS V1	

ETRICAL WIRING AND FITTINGS

ELECTRIC COPPER WIRING SHALL RUN IN BEST QUALITY PVC. CONDUITS IN SERVICE DUCTS HOWN IN DRAWINGS.

PIPING IN CEILINGS SHALL BE CONCEALED IN R.C.C. SLABS.

WINGS OF ELECTRIC METERS DISTRIBUTION BOARDS, ELECTRIC SWITCH BOARDS, SPLIT AC NTS, PIPES, DUCTING, FITTINGS AND OTHER ASSESSORIES SHALL BE FINALISED ON WINGS BY S.E., ELECTRICAL (DESIGN SECTION) NAGAR BEFORE THE CONSTRUCTION STARTS. ONE SET OF ARCHITECTURAL WORKING WINGS SHALL BE FURNISHED TO THIS OFFICE FOR CONFIRMATION IN ORDER TO CREATE TER AND EASY CONSTRUCTION PROCESS.

OR FINISHING

TERIOR WALLS AND PARTITIONS,RCC COLUMNS ,BEAMS AND CEILINGS SHALL BE FINISHED ALE COAT CEMENT MALA FINISHED PLASTER WITH 1X1 CM GROOVES AND 3 COATS OF IC DISTEMPER, AS APPROVED BY THIS OFFICE. .

OR FINISHING

D CEMENT TERRAZO PLASTER USING 02 NO. GRADE COLOURED AND WHITE STONE WITH 1CM. X 1CM. GROOVES ON ALL EXTERNAL SURFACES AND WINDOW JAMBS UNLESS D AS/ PATTERN & COLOUR SAMPLES APPROVED BY THIS OFFICE ON SITE.

POLYTECHNIC AT VADNAGAR/ IET & COMM DEPT WORKING DRG.

WATER PROOFING MATERIAL

TO ENSURE PREVENTION OF LEAKAGES/SEEPAGES OF RAIN WATER/UNDER GROUND WATER, WASTE WATER ETC, WATER PROOFING MATERIALS/TECHNIQUES LIKE DAMP PROOF COURSES(DPC's) WATER PROOFING CEMENT, SILICON COATS, GOOD QUALITY CEMENT PAINT, VATA ETC. ARE TO BE USED.

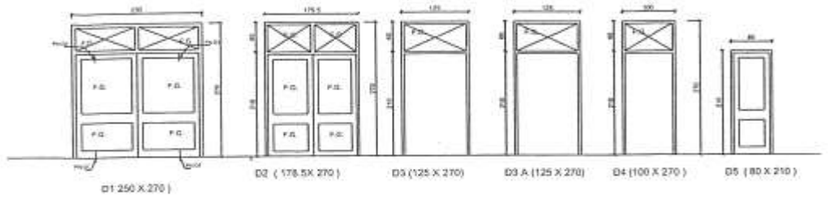
STAIR CASES

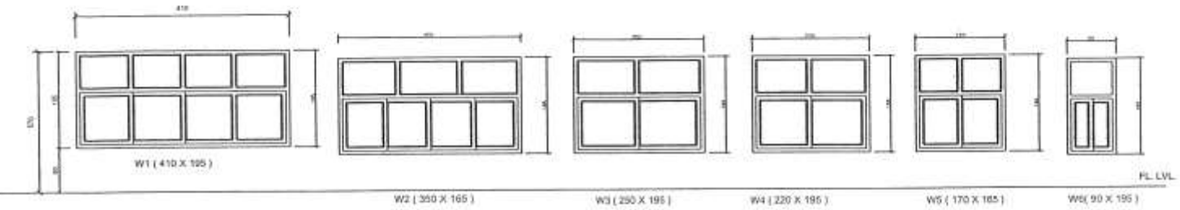
RISER - 15 CM.
TREAD - 30 CM.
WIDTH - AS PER DRAWING
TYPE - R.C.C. SIMPLE PLAIN WAIST/FOLDED PLATE TYPE
RAILING : M.S. RAILING 90CM. HIGH CUT OF 40MM. X 40MM. & 40MM. X 20MM. M.S. HOLLOW SECTION FRAME (14 GAUGE) WITH P.V.C. ON TOP ASSORTAL.
STAIRCASE SOFFIT = DOUBLE COAT CEMENT MALA PLASTER SEPERATED FROM SIDE OF STAIR CSE FINISH BY 5 CM. WIDE TAPAK AT SOFIT.

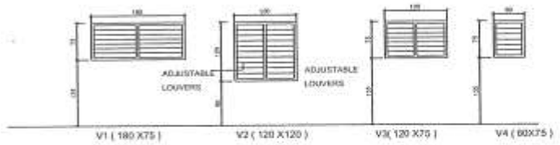
NOTES :-

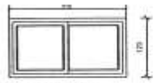
- ALL THE WINDOWS SILLS ARE TO BE PROVIDED WITH 18 MM TH. GREEN MARBLE SILLS HAVING SMOOTH FINISHED NOSING ON BOTH FACES AS PER DETAIL DRG &COLOUR SHADE APPROVED BY THIS OFFICE
- ALL THE WINDOWS ARE TO BE PROVIDED WITH 10 MM X 10 MM SIZE HORIZONTAL M.S. SQUARE BAR GRILL WITH 25 MMx 5 MM FLAT SURROUNDING FRAMING AND INTERMEDIATE SUPPORTS AS PER DRG WITH ONE COAT OF PRIMER & TWO COATS OF OIL PAINT.
- SAMPLES OF ALL MATERIAL & FINISHES TO BE USED IN THIS PROJECT SHALL BE EXHIBITED AT AFIXED PLACE IN THE CONCERNED OFFICE BEFORE INVITING TENDER FOR THE CONTRACTORS BIDDING FOR THE TENDER.

GANDHINAGAR SCIENCE COLLEGE. NEW BUILDING





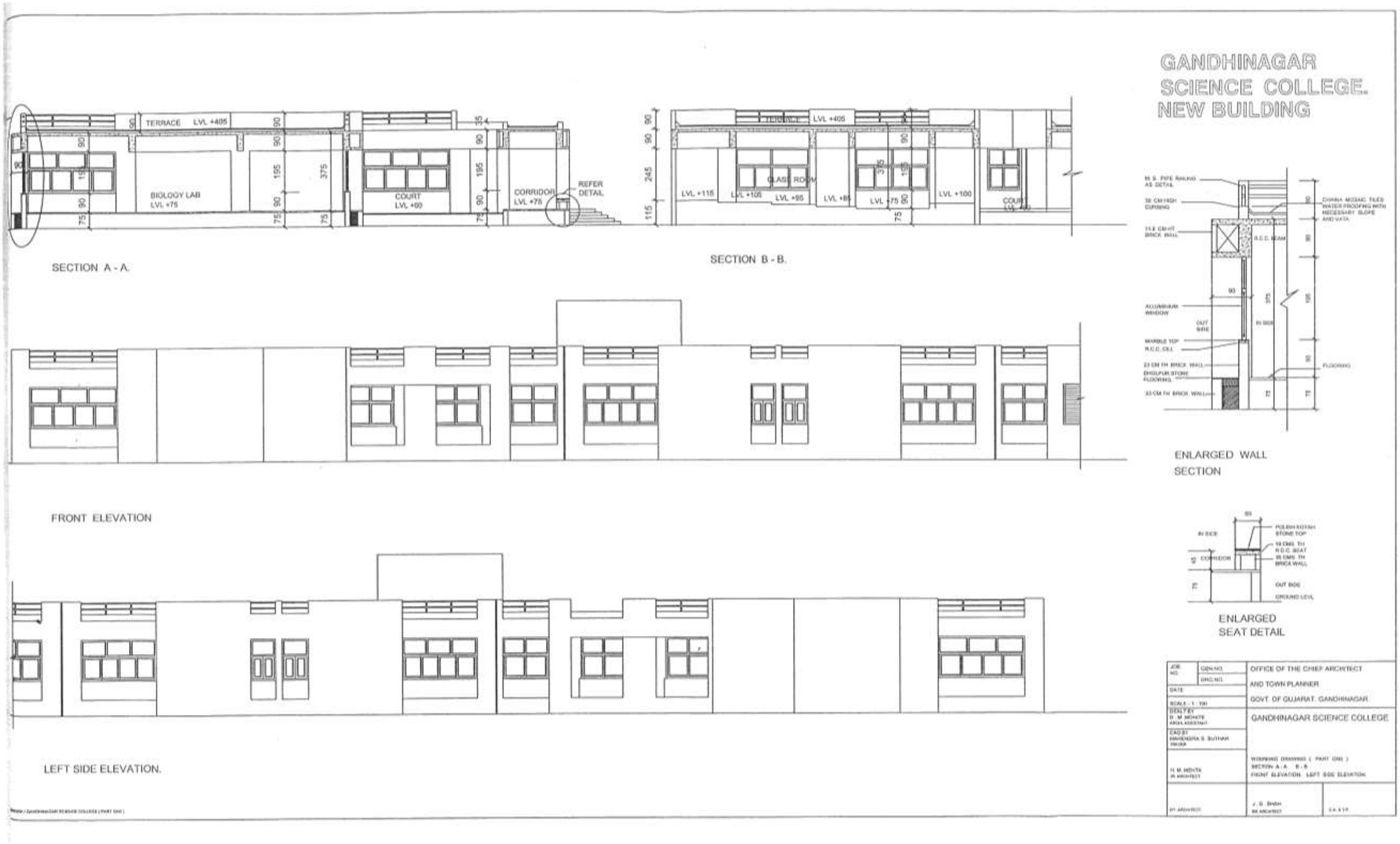




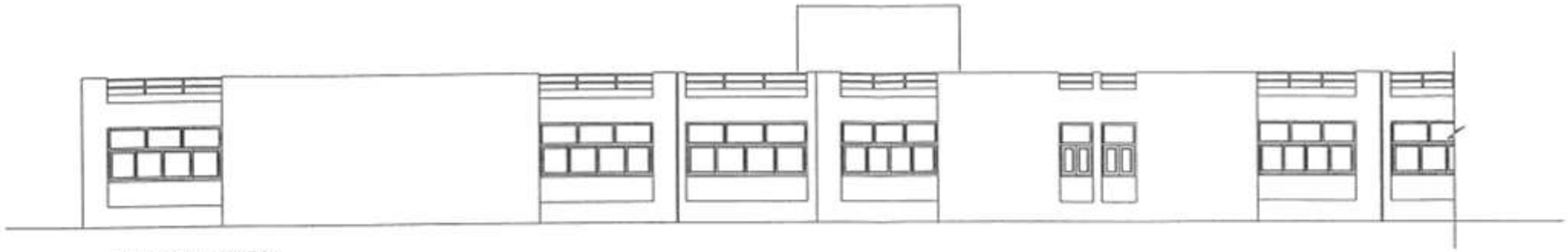
SCHEDULE FOR FLOORING.

NO.	TYPE	DESCRIPTION	LOCATION
1.	F1	60 X 60 CM. HAND DRESSED POLISHED KOTAH STONE FLOORING OF EVEN GRADE WITH 10 CM. HIGH SKIRTING OF THE SAME.	ALL LAB'S , CLASS ROOM , LIBRARY,
2.	F2	80 X 80 CM. HAND DRESSED MIRROR POLISHED KOTAH STONE FLOORING OF EVEN GRADE WITH YELLOW JAISALMER PATTERN (20%) 10 CM. SKIRTING OF THE SAME AS / DETAIL.	ENTRANCE HALL, CORRIDOR
3.	F3	30 CM x 30 CM ACID PROOF TILES FOR LABORATORY PLATE FORM ON TOP AND SIDE WALLS AS DETAIL.	LABORATORY
4	F4	MACHINE CUT FREE STONES, MACHINE POLISHED KOTAH STONE FINISHED TREAD AND RISER IN SINGLE PIECE.	STAIR CASE
5.	F5	30CM X30CM. COLOURED GLAZED TILES FLOORING WITH 210CM. HIGH COLOURED GLAZED TILES DADO AS PER SAMPLE APPROVED BY THIS OFFICE.	TOILET
6.	F6	20CM X20CM. CERAMIC TILES (ANTISKID TYPE) FLOORING AND 210CM. HIGHDADO AS PER SAMPLE APPROVED BY THIS OFFICE.	BATH, W.C.
7.	F7	CHINA MOSAIC PATTERN FLOORING IN WHITE GLAZED TILE CHIPS IN WHITE CEMENT FINISH WITH 15 CM. RADIUS VATA ALONG THE WALLS AND FINAL ACID WASH FINISHED LAID TO PROPER SLOPE.	TERRACE
8	F8	HAND DRESSED MACHINE POLISHED RED/PINK DHOLPUR STONE FLOORING HAVING VERY FINE JOINTS FILLED WITH COLOUR/MIXED IN WHITE CEMENT AS/PATTERN DETAIL.	COURT YARD, AND PLINTH PROTECTION

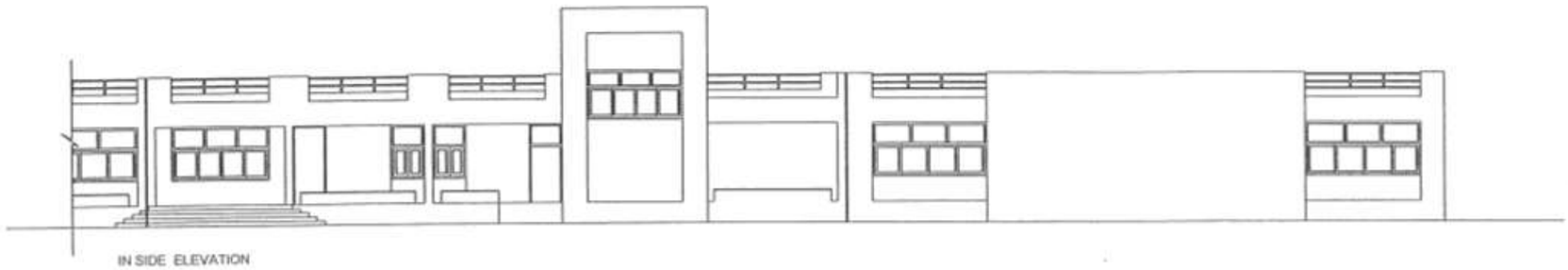
JOB NO.	DEN.NO. / DRG.NO.	OFFICE OF THE CHIEF ARCHITECT AND TOWN PLANNER GOVT. OF GUJARAT. GANDHINAGAR.
DATE : -I- - 2005		
SCALE :-		
DELT & CAD BY: MAHENDRA SUTHAR, TRACER.		GANDHINAGAR SCIENCE COLLEGE
(Md. H. M. MEHTA) JR. ARCHITECT.		* SCHEDULE FOR DOORS, WINDOWS, VENTILATORS * SCHEDULE OF FLOORING, INTERIOR FINISH,EXTERIOR FINISH, STAIRCASE
DY. ARCHITECT	J. B. SHAH SR. ARCHITECT	C.A. & T.P.


GANDHINAGAR
SCIENCE COLLEGE.
NEW BUILDING
TERRACE LVL +405
BIOLOGY LAB
LVL +75
COURT
LVL +00
CORRIDOR
LVL +75
REFER
DETAIL
SECTION A - A.
TERRACE LVL +405
GLASS ROOM
LVL +115
LVL +105
LVL +95
LVL +85
LVL +75
LVL +100
COURT
SECTION B - B.
ENLARGED WALL
SECTION
FRONT ELEVATION
LEFT SIDE ELEVATION.
ENLARGED
SEAT DETAIL
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT, GANDHINAGAR
GANDHINAGAR SCIENCE COLLEGE
WORKING DRAWING (PART ONE)
SECTION A - A , B - B
FRONT ELEVATION , LEFT SIDE ELEVATION

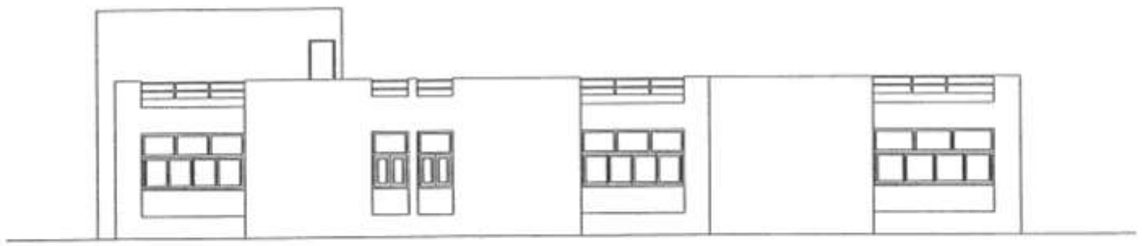
GANDHINAGAR
SCIENCE COLLEGE.



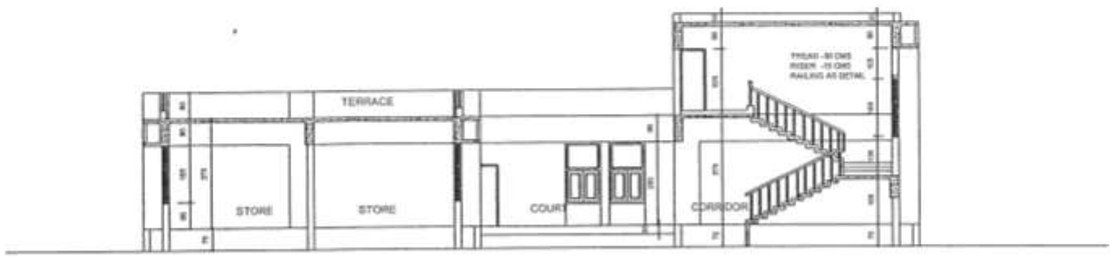
FRONT SIDE ELEVATION



IN SIDE ELEVATION

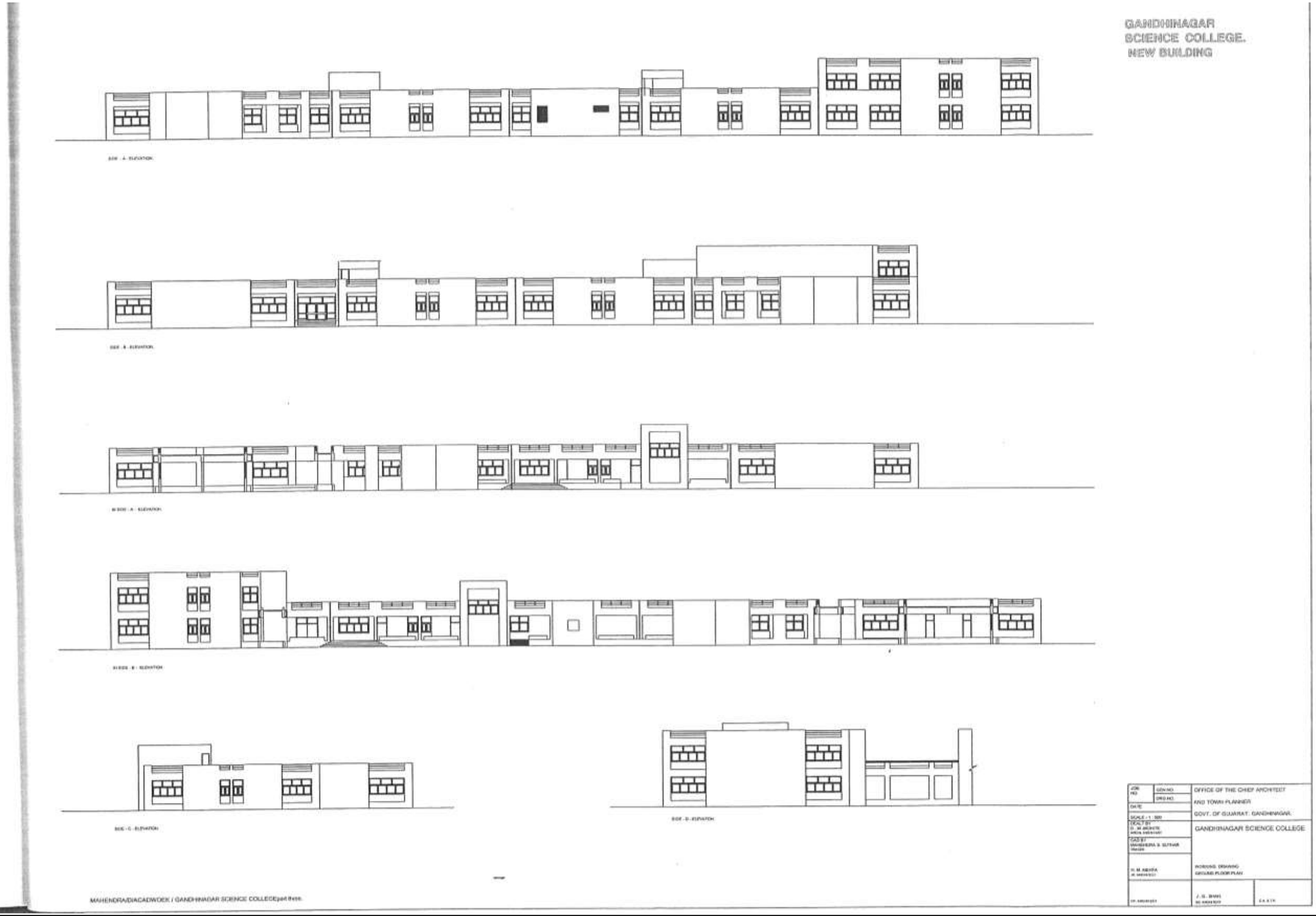


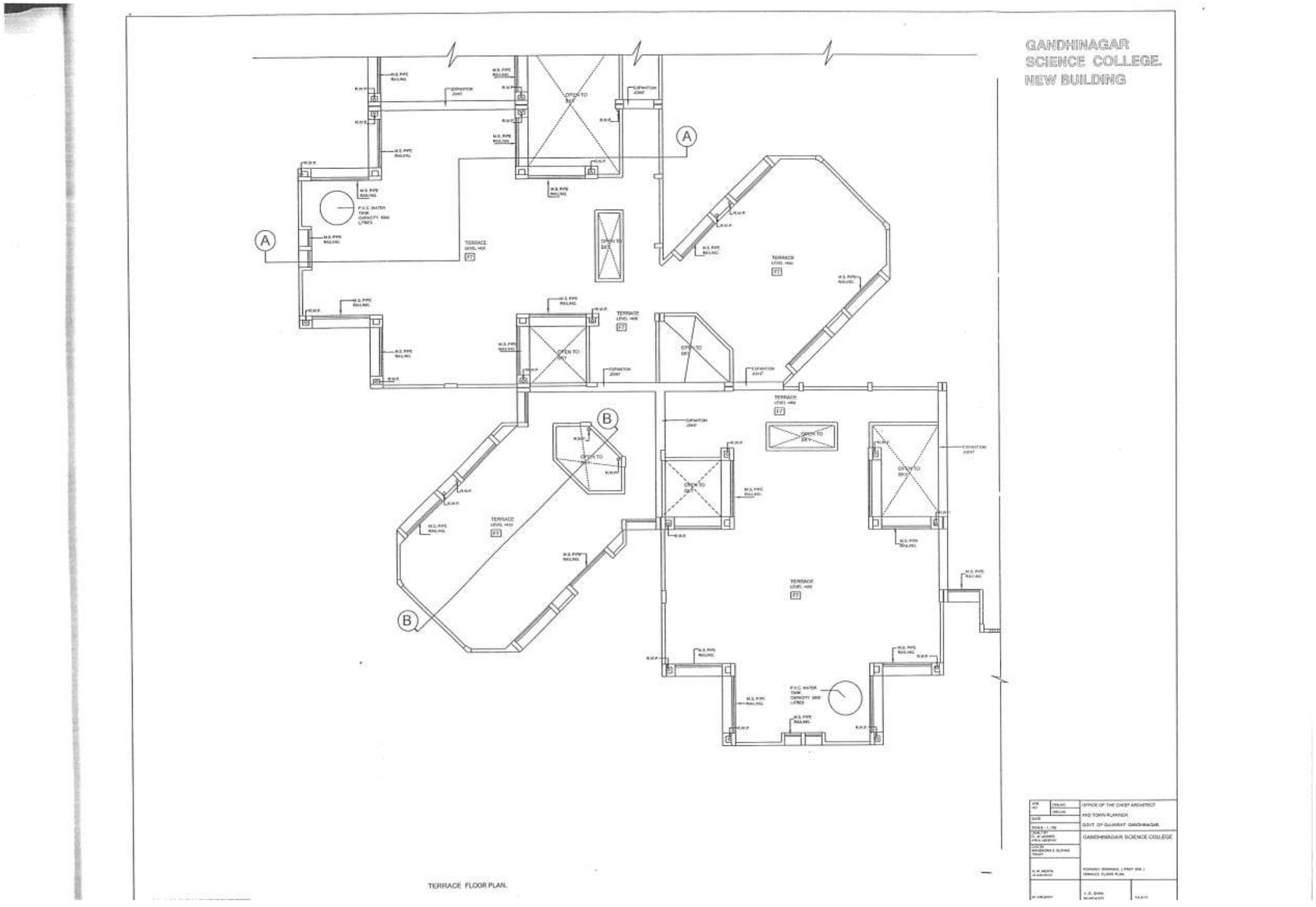
SIDE ELEVATION

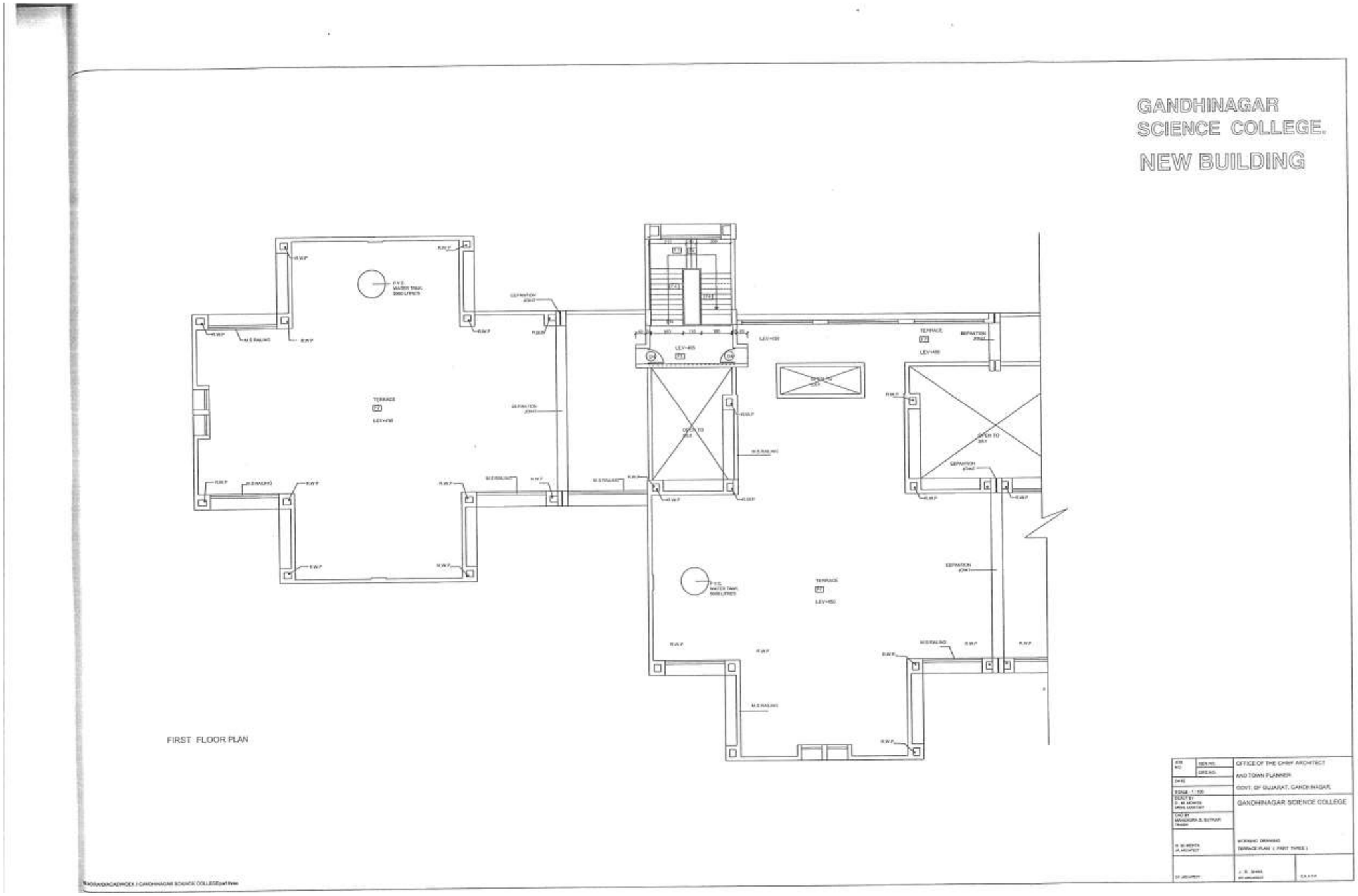


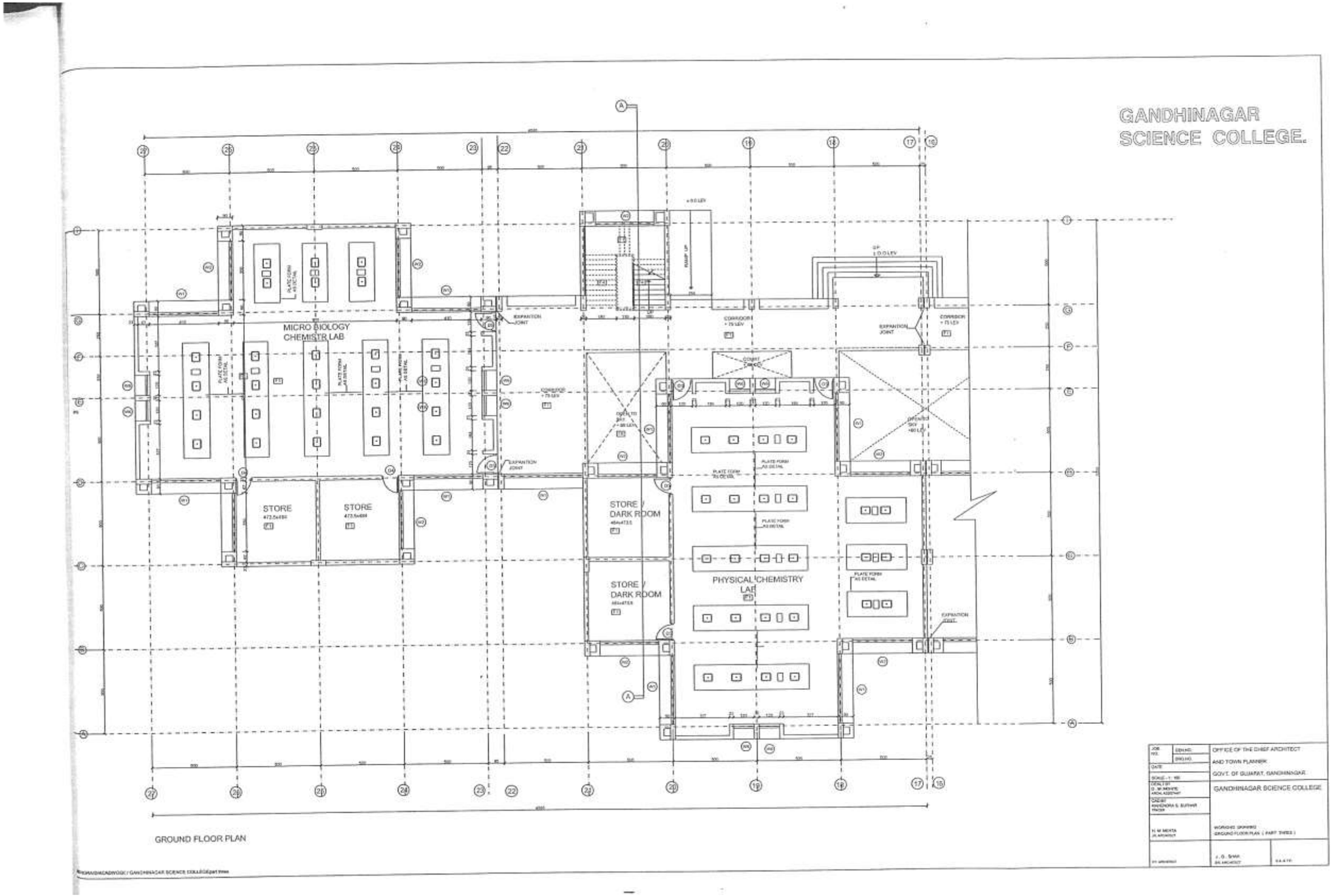
SECTION A - A .

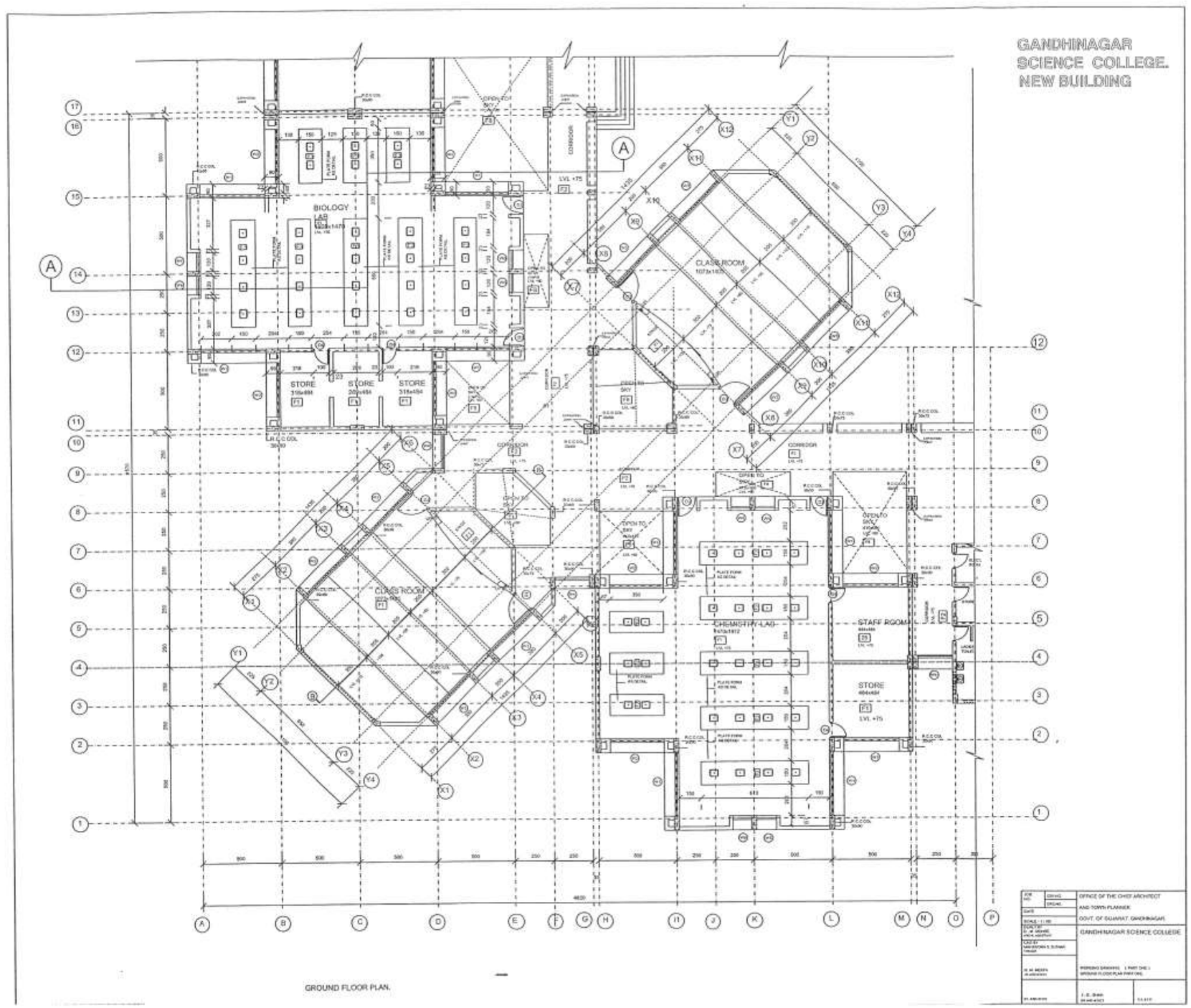
JOB NO.	MAIN NO. / SPEC NO.	OFFICE OF THE CHIEF ARCHITECT AND TOWN PLANNER GOVT. OF GUJARAT, GANDHINAGAR.
DATE		
SCALE : 1 : 100		
DESIGNED BY D. M. MEHTA (ARCHITECT)		GANDHINAGAR SCIENCE COLLEGE
CHECKED BY BHUPENDRA S. SUTHAR (TRACER)		
H. M. MEHTA (ARCHITECT)		WORKING DRAWING (PART THREE) ELEVATION AND SECTION
(ARCHITECT)	J. G. SHAH (ARCHITECT)	S.A. & T.P.


GANDHINAGAR
SCIENCE COLLEGE.
NEW BUILDING
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT. GANDHINAGAR.
GANDHINAGAR SCIENCE COLLEGE
WORKING DRAWING
GROUND FLOOR PLAN
MAHENDRA/DIACADWORK / GANDHINAGAR SCIENCE COLLEGEpart III.ms.

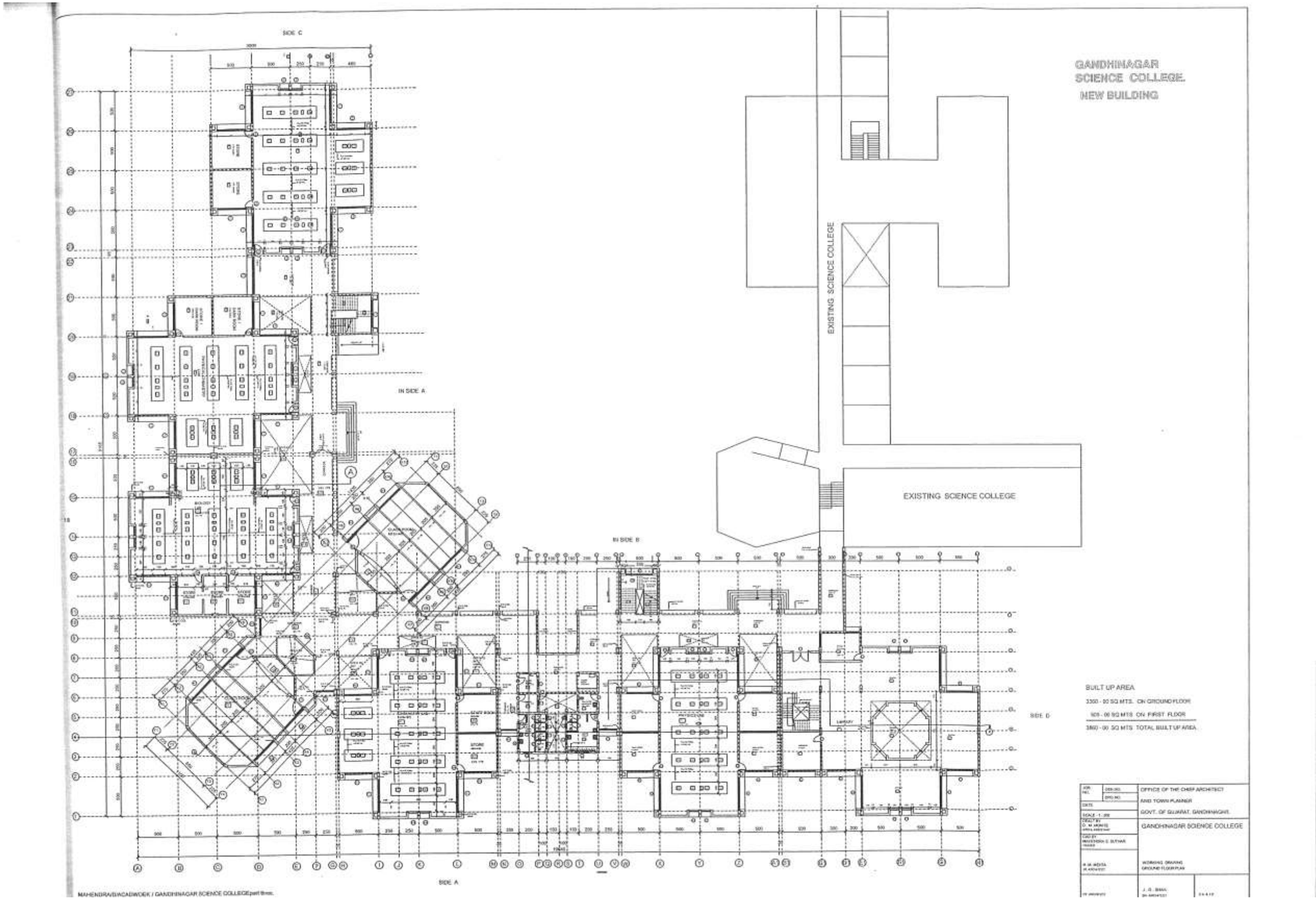

GANDHINAGAR
SCIENCE COLLEGE.
NEW BUILDING
TERRACE FLOOR PLAN.
GANDHINAGAR SCIENCE COLLEGE

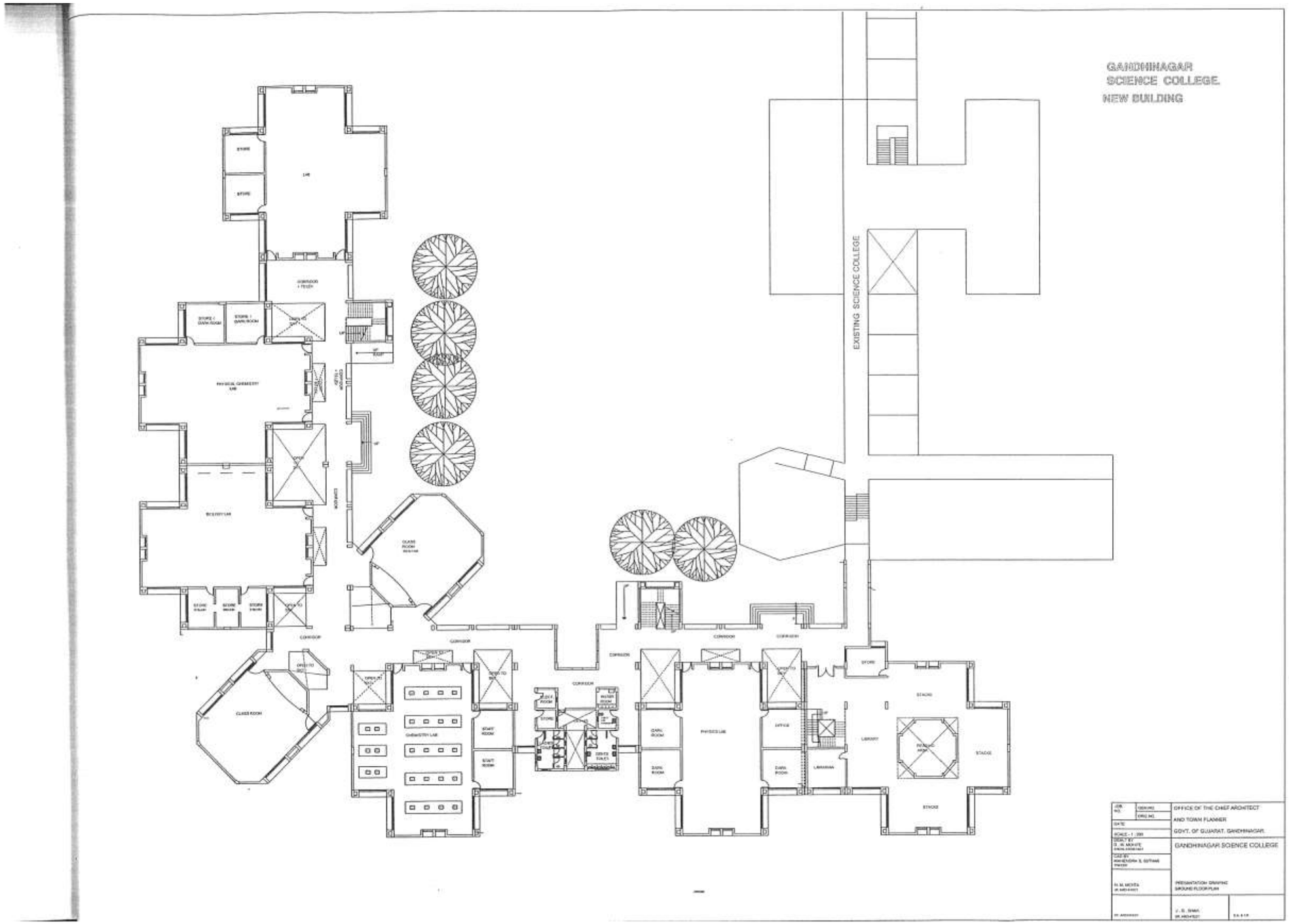

GANDHINAGAR
SCIENCE COLLEGE.
NEW BUILDING
FIRST FLOOR PLAN
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT, GANDHINAGAR.
GANDHINAGAR SCIENCE COLLEGE

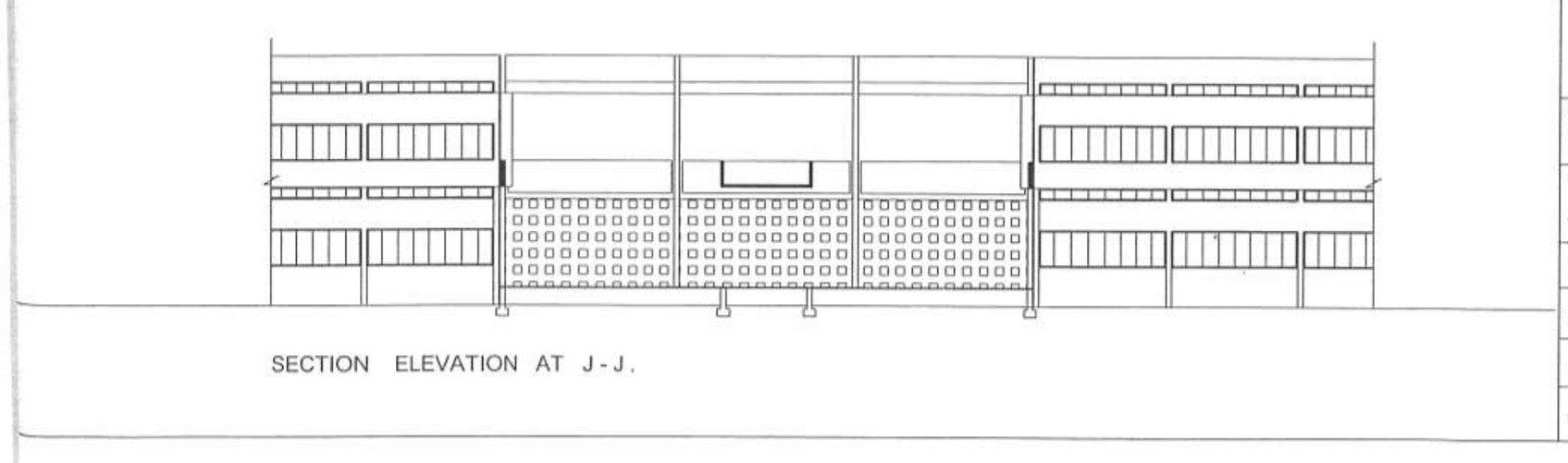

GANDHINAGAR
SCIENCE COLLEGE.
MICRO BIOLOGY
CHEMISTR LAB
STORE
STORE
STORE /
DARK ROOM
STORE /
DARK ROOM
PHYSICAL CHEMISTRY
LAB
GROUND FLOOR PLAN
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT, GANDHINAGAR.
GANDHINAGAR SCIENCE COLLEGE



GROUND FLOOR PLAN.


SIDE C
IN SIDE A
IN SIDE B
SIDE D
SIDE A
GANDHINAGAR
SCIENCE COLLEGE.
NEW BUILDING
EXISTING SCIENCE COLLEGE
EXISTING SCIENCE COLLEGE
BUILT UP AREA
3300 - 00 SQ MTS. ON GROUND FLOOR
909 - 06 SQ MTS ON FIRST FLOOR
3860 - 00 SQ MTS. TOTAL BUILT UP AREA.
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT, GANDHINAGAR.
GANDHINAGAR SCIENCE COLLEGE
WORKING DRAWING
GROUND FLOOR PLAN
MAHENDRA/BA/CAD/WORK / GANDHINAGAR SCIENCE COLLEGE.pwd 9/mm.


GANDHINAGAR
SCIENCE COLLEGE
NEW BUILDING
EXISTING SCIENCE COLLEGE
OFFICE OF THE CHIEF ARCHITECT
AND TOWN PLANNER
GOVT. OF GUJARAT, GANDHINAGAR.
GANDHINAGAR SCIENCE COLLEGE
PRESENTATION DRAWING
GROUND FLOOR PLAN

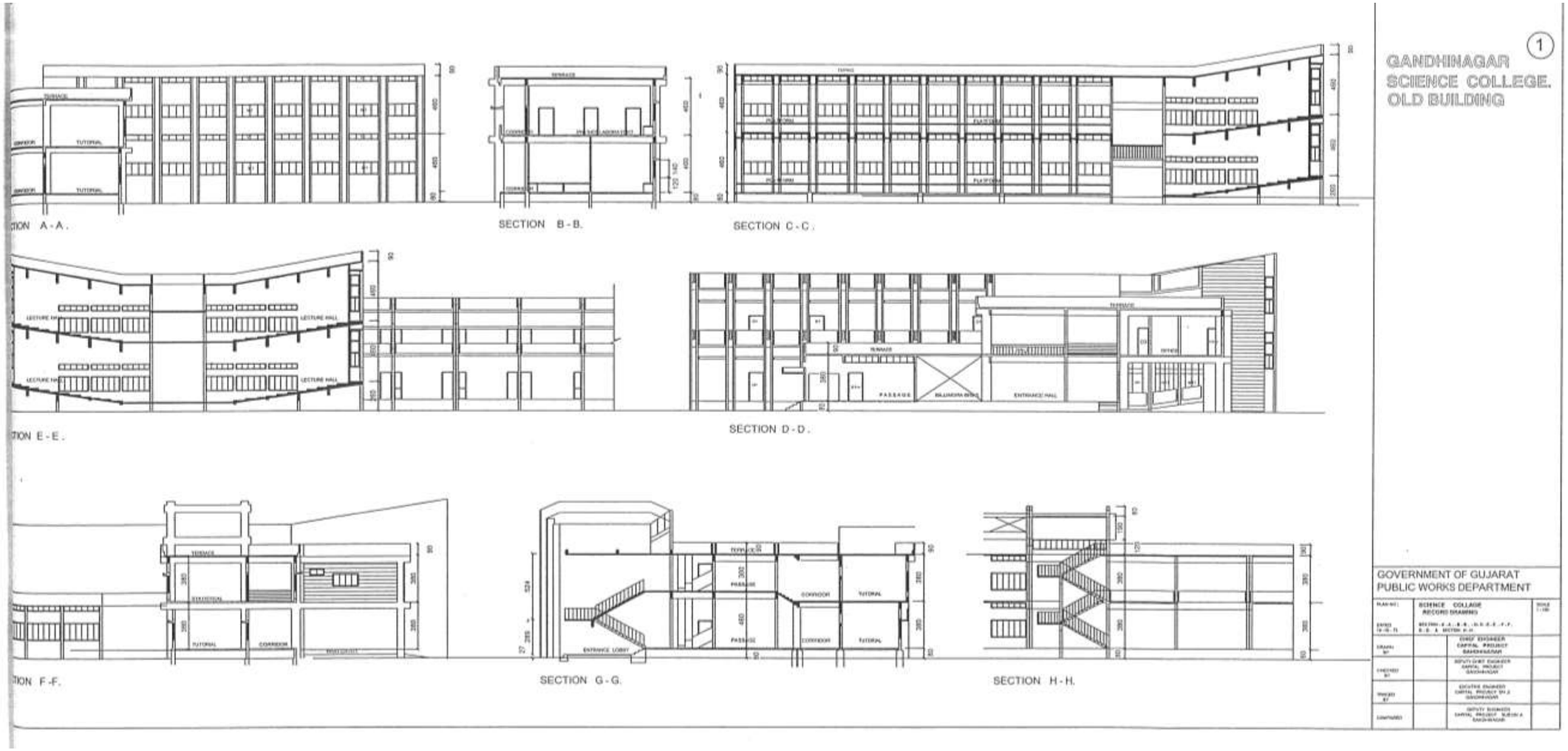


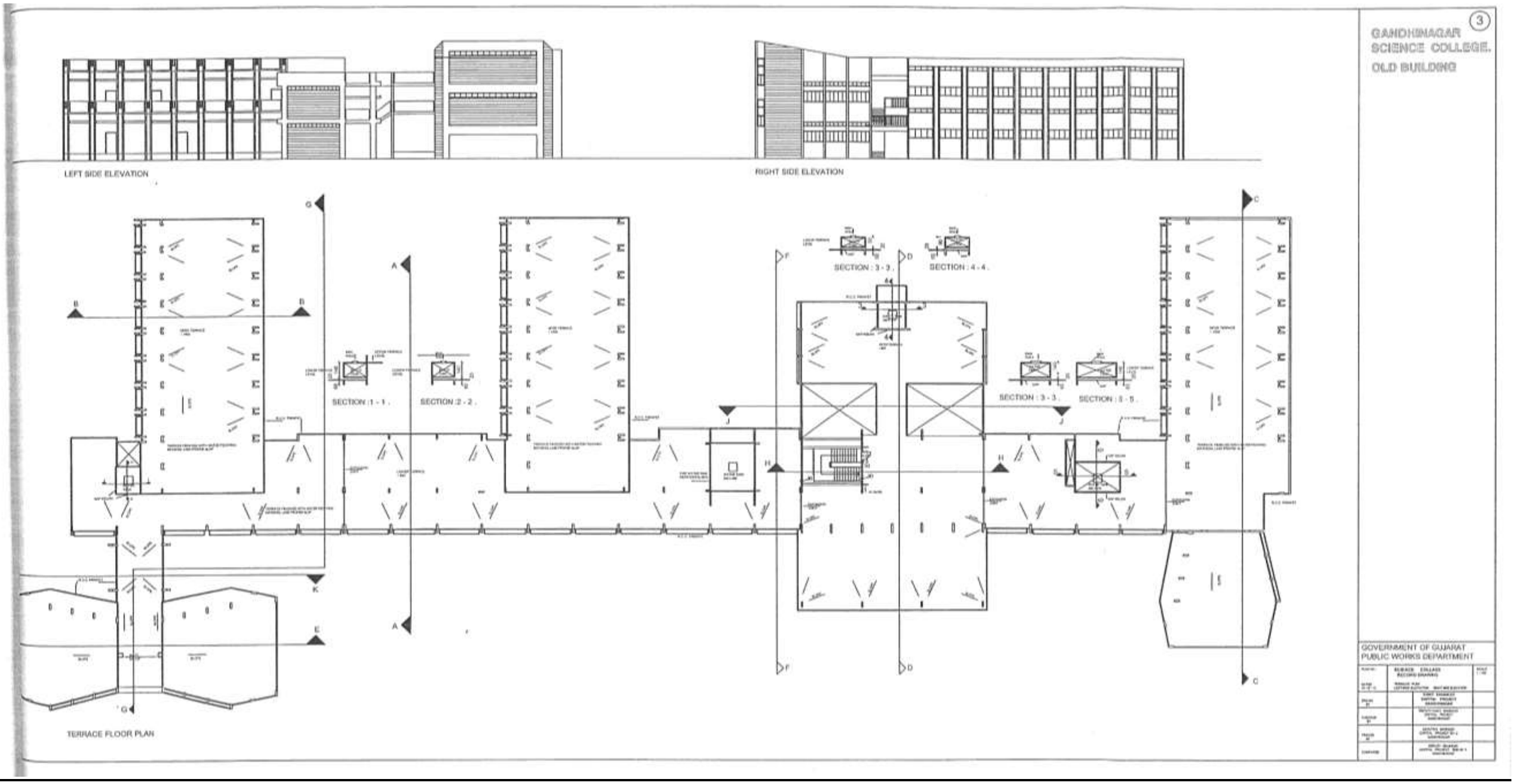
2

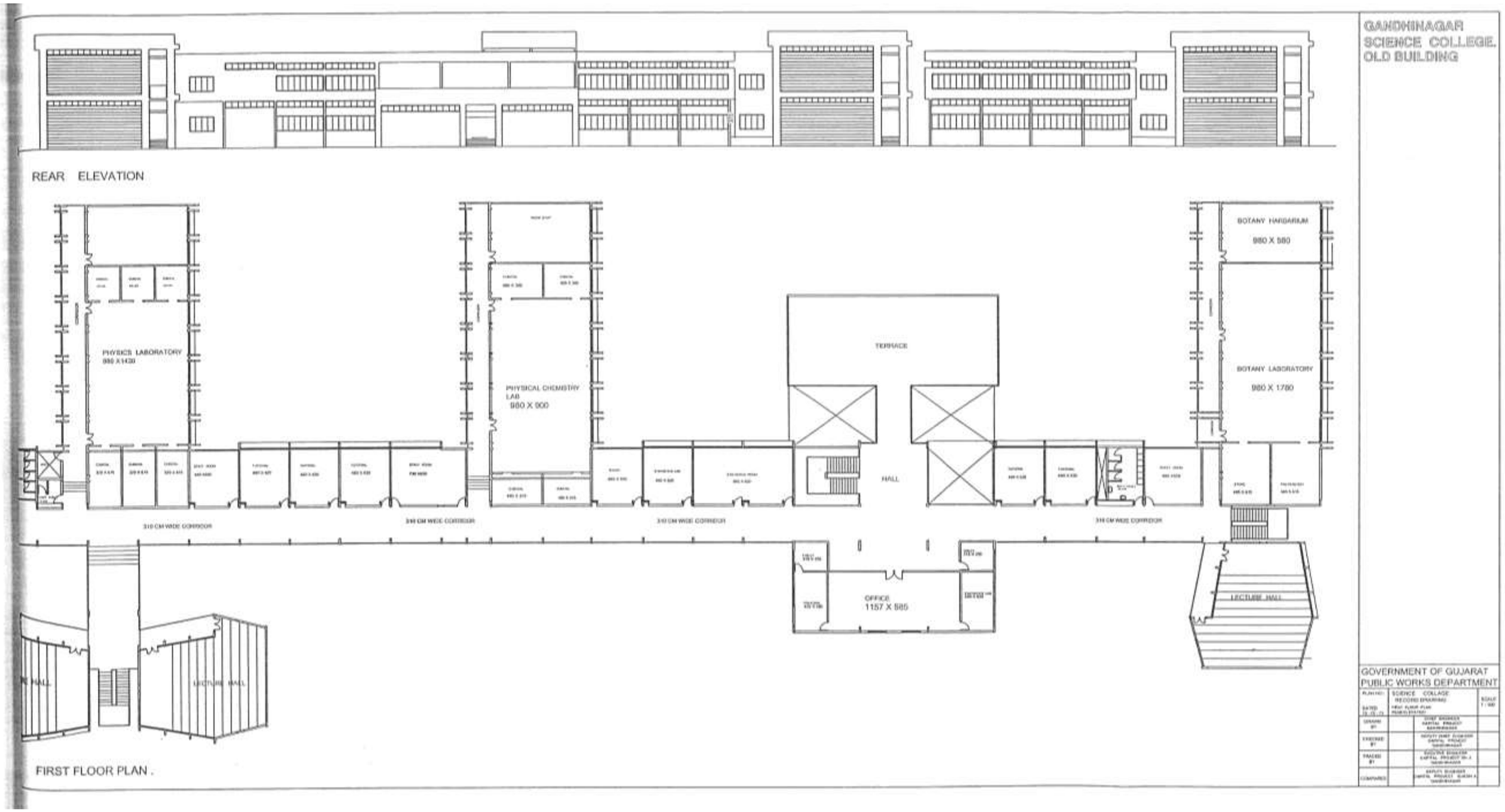
GANDHINAGAR
SCIENCE COLLEGE.
OLD BUILDING

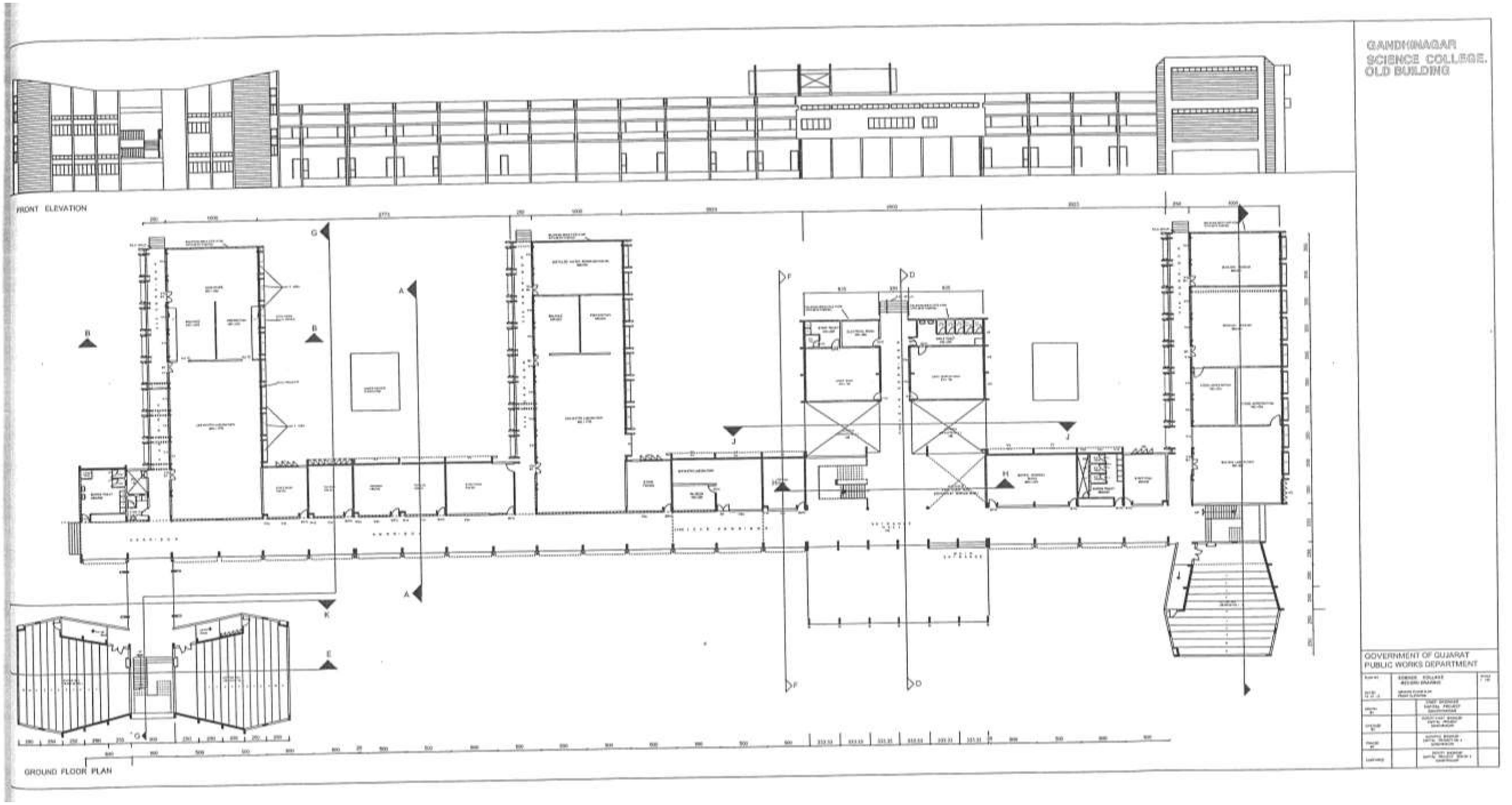
GOVERNMENT OF GUJARAT
PUBLIC WORKS DEPARTMENT

PLAN NO.; DATED 10-10-73	SCIENCE COLLAGE RECORD DRAWING SECTIONAL ELEVATION AT J-J. SECTION AT M-M. SECTIONAL ELEVATION AT K-K.		SCALE 1:100
DRAWN BY		CHIEF ENGINEER CAPITAL PROJECT GANDHINAGAR	
CHECKED BY		DEPUTY CHIEF ENGINEER CAPITAL PROJECT GANDHINAGAR	
TRACED BY		EXCUTIVE ENGINEER CAPITAL PROJECT DN 2 GANDHINAGAR	
COMPARED		DEPUTY ENGINEER CAPITAL PROJECT SUB DN 4 GANDHINAGAR	


SECTION A-A.
SECTION B-B.
SECTION C-C.
SECTION E-E.
SECTION D-D.
SECTION F-F.
SECTION G-G.
SECTION H-H.
GANDHINAGAR
SCIENCE COLLEGE.
OLD BUILDING
1
GOVERNMENT OF GUJARAT
PUBLIC WORKS DEPARTMENT
SCIENCE COLLAGE
RECORD DRAWING


3
GANDHINAGAR
SCIENCE COLLEGE.
OLD BUILDING
LEFT SIDE ELEVATION
RIGHT SIDE ELEVATION
SECTION : 1 - 1 .
SECTION :2 - 2 .
SECTION : 3 - 3 .
SECTION : 4 - 4 .
SECTION : 3 - 3 .
SECTION : 5 - 5 .
TERRACE FLOOR PLAN
GOVERNMENT OF GUJARAT
PUBLIC WORKS DEPARTMENT


GANDHINAGAR
SCIENCE COLLEGE.
OLD BUILDING
REAR ELEVATION
PHYSICS LABORATORY
980 X 1430
PHYSICAL CHEMISTRY
LAB
980 X 900
TERRACE
HALL
BOTANY HARDARIUM
980 X 980
BOTANY LABORATORY
980 X 1780
310 CM WIDE CORRIDOR
OFFICE
1157 X 585
LECTURE HALL
LECTURE HALL
FIRST FLOOR PLAN .
GOVERNMENT OF GUJARAT
PUBLIC WORKS DEPARTMENT
SCIENCE COLLAGE
- RECORD DRAWING


FRONT ELEVATION
GROUND FLOOR PLAN
GANDHINAGAR
SCIENCE COLLEGE.
OLD BUILDING
GOVERNMENT OF GUJARAT
PUBLIC WORKS DEPARTMENT