# The Annual Quality Assurance Report (AQAR) of the IQAC

(For Affiliated/Constituent Colleges)

#### A.Y. 2016-17

# AISHE ID: C-731 H. & H.B. KOTAK INSTITUTE OF SCINECE RAJKOT

#### Part - A

#### **Data of the Institution**

(data may be captured from IIQA)

**1.** Name of the Institution

H. & H.B. KOTAK INSTITUTE OF SCINECE RAJKOT

• Name of the Head of the institution : DR RANJANA A. AGARWAL

• Designation: PRINCIPAL

• Does the institution function from own campus: YES

• Phone no./Alternate phone no.: 0281-2465643

• Mobile no.: 9374293999

• Registered e-mail: kotaksciencecollegerajkot@gmail.com

• Alternate e-mail: ranjanaagarwal31@gmail.com

• Address :DR YAGNIK ROAD

• City/Town : RAJKOT

• State/UT : GUJARAT

• Pin Code : 360007

#### **2.** Institutional status:

- Affiliated / Constituent: Affiliated
- Type of Institution: Co-education
- Location : Rural/Semi-urban/Urban: Urban
- Financial Status: Grants-in aid/ UGC 2f and 12 (B)/ Self financing (please specify) UGC 2f and 12(B)
- Name of the Affiliating University: SAURASHTRA UNIVERSITY
- Name of the IQAC Co-ordinator: Mr NT CHOTALIYA

• Phone no.: 0281-2468376

• Mobile: 9426928329

• IQAC e-mail address: hhbkisiqac@gmail.com

3. Website address: kotaksciencecollege.co.in

Web-link of the AQAR: (Previous Academic Year):

http://kotaksciencecollege.co.in/upload/naac/AQAR\_15-16.pdf

http://kotaksciencecollege.co.in/upload/naac/AQAR\_16-17.pdf

4. Whether Academic Calendar prepared during the year? YES

Yes/No...., if yes, whether it is uploaded in the Institutional website:

Weblink: No

#### **5.** Accreditation Details:

| Cycle           | Grade | CGPA | Year of Accreditation | Validity Period    |
|-----------------|-------|------|-----------------------|--------------------|
| 1 <sup>st</sup> | B+    | 78%  | 2007                  | from:2007 to: 2012 |

6. Date of Establishment of IQAC: DD/MM/YYYY: 09/03/2013

# 7. Internal Quality Assurance System

| 7.1 Quality initiatives by IQAC during the year for promoting quality culture |                 |                            |  |  |
|---|-----------------|----------------------------|--|--|
| Item /Title of the quality initiative by Number of                            |                 |                            |  |  |
| IQAC  | Date & duration | participants/beneficiaries |  |  |
| Participation in NIRF   | 15/12/2017      |                            |  |  |

# <u>Note</u>: Some Quality Assurance initiatives of the institution are: (Indicative list)

- Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements
- Academic Administrative Audit (AAA) conducted and its follow up action
- Participation in NIRF
- ISO Certification
- NBA etc.
- Any other Quality Audit

8. Provide the list of funds by Central/ State Government-

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

| Institution/                |        | Funding    | Year of award with |          |
|-----------------------------|--------|------------|--------------------|----------|
| Department/Faculty          | Scheme | agency     | duration           | Amount   |
| H.&H.B. Kotak               |        | State      |                    |          |
| <b>Institute of Science</b> |        | Government | 2017-18            | 43128928 |

9. Whether composition of IQAC as per latest NAAC guidelines: Yes/No: YES

\*upload latest notification of formation of IQAC

10. No. of IQAC meetings held during the year: 04

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website......

Yes/No No

(Please upload, minutes of meetings and action taken report)

**11.** Whether IQAC received funding from any of the funding agency to support its activities during the year? Yes No No

If yes, mention the amount: Year:

- 12. Significant contributions made by IQAC during the current year (maximum five bullets)
  - \* Participation in NIRF
  - \* Assessment of Academic Performance Indicators under Career Advancement Scheme
  - \* Modification of Online Admission Process

**13.** Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

| Plan of Action | Achievements/Outcomes |
|----------------|-----------------------|
|                |                       |

**14.** Whether the AQAR was placed before statutory body? Yes /No: No

Name of the Statutory body: N.A. Date of meeting(s): N.A.

**15.** Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?

Yes/No: NO Date: N.A.

16. Whether institutional data submitted to AISHE: Yes/No: YES

Year: 2016-17 Date of Submission: 23/01/2017

17. Does the Institution have Management Information System?

Yes No NO

If yes, give a brief description and a list of modules currently operational. (Maximum 500 words)

N.A.

#### Part-B

#### CRITERION I – CURRICULAR ASPECTS

# 1.1 Curriculum Planning and Implementation

1.1.1 Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

The College is affiliated to Saurashtra University and follows the curriculum and syllabi prescribed by the university. Saurasthra University provides Academic Calender at the beginning of each academic year. Advance planning of Academic activities is done by the college in concordance with the University academic calendar.

For the successful and timely implementation of curriculum, Time-table committee of the college prepares a Time-Table after the discussion with Head of the all departments at the beginning of each semester. Each department conducts departmental meetings where workload distribution among staff is prepared for the given time-table. Faculties prepare advanced academic planner for their work for timely implementation as well.

Students are made aware of the academic plans through time table and relevant notices as well as in the classrooms by their respective teachers. Also, slow and advanced learners from F.Y. B. Sc. Students are identified in the beginning of academic year. Teachers plan their work in view of the abilities of the slow learners, the average students and the advanced learners.

In addition to conventional teaching methods, faculties use other tools to supplement the effective delivery of curricular aspects such as field visits, study tours, industrial visits, group discussions, projects, class seminars, quiz and use of ICT. The college has put in place required infrastructure for technology-led learning. The campus is fully wi-fi enabled with internet access to all students and faculty.

To improve the delivery of curricular aspects by teachers, the institute supports the faculty members in various ways: by providing well-equipped library facility; by providing encouragement to attend various seminars, workshops, faculty development programs, refresher and orientation courses to update their knowledge etc.

The Head of the department and the Principal do a periodical review monitoring of delivery of curriculum and also the student's attendance

The internal examinations are organized systematically to assess the attainments of course outcome.

The IQAC monitors the feedback of students regarding curriculum delivery which helps in incorporating necessary measures for effective implementation.

| 1.1.2 Certificate/ Diploma Courses introduced during the Academic year |         |                      |                         |                   |  |  |  |
|--|---------|----------------------|-------------------------|-------------------|--|--|--|
| Name of  | Name of | Date of introduction | focus on employability/ | Skill development |  |  |  |
| the  | the     | and duration         | entrepreneurship        |                   |  |  |  |
| Certificate  | Diploma |                      |                         |                   |  |  |  |
| Course   | Courses |                      |                         |                   |  |  |  |
|  |         |                      |                         |                   |  |  |  |

#### 1.2 Academic Flexibility

1.2.1 New programmes/courses introduced during the Academic year

| <b>Programme with</b>  | Date o     | of Intro | oduction   | Cours        | se with                                 | Code       | Date o    | f Intro  | duction    |
|--|------------|----------|------------|--------------|---|------------|-----------|----------|------------|
| Code   |            |          |            |              |   |            |           |          |            |
| NIL  |            | NI       |            |              | NIL                                     |            |           | NIL      |            |
| 1.2.2 Programmes in  |            |          |            |              |   |            |           |          | tem        |
| implemented at the a   |            |          |            |              |   |            |           |          | 1          |
| Name of Programme  | es         | UG       | PG         |              |   | mentatio   |           | UG       | PG         |
| adopting CBCS  |            |          |            |              |   | ve Cours   | se        |          |            |
|  |            |          |            | System       |   |            |           |          |            |
| B.Sc. Chemistry  |            | 7        | NIL        | 2009-10      | )                                       |            |           | 7        | NIL        |
| B.Sc. Physics  |            |          |            |              |   |            |           |          |            |
| B.Sc. Mathematics  |            |          |            |              |   |            |           |          |            |
| B.Sc. Statistics   |            |          |            |              |   |            |           |          |            |
| B.Sc. Botany   |            |          |            |              |   |            |           |          |            |
| B.Sc. Zoology  |            |          |            |              |   |            |           |          |            |
| B.C.A.   |            |          |            |              |   |            |           |          |            |
| Already adopted (me  | ention th  | e vear)  |            |              |   |            |           |          |            |
|  |            |          |            | na Courses   | introd                                  | nced dur   | ing the   | vear     |            |
| 1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year  No of Students   Certificate   Diploma Courses |            |          |            |              |   |            |           |          |            |
|  | NIL        |          | NII        |              | 505                                     |            |           |          |            |
| 1.3 Curriculum En  |            | nt.      | 1 1 1 2 2  | _            |   |            |           |          |            |
| 1.3.1 Value-added co   |            |          | g transfe  | rable and l  | ife skil                                | ls offere  | d during  | the ve   | ar         |
| Value added courses  |            |          | <u> </u>   |              | ntroduction Number of students enrolled |            |           |          |            |
| Finishing School   |            |          | August 2   | 2016 40      |   |            |           |          |            |
| IIT Bombay Spoken  | Tutorial   | 1        | August 2   | 016          | 016 150                                 |            |           |          |            |
| 1.3.2 Field Projects   | / Internsl | hips un  | der taken  | during the   | year                                    |            |           |          |            |
| Project/Pro  | gramme     | Title    |            | No. o        | f stude                                 | nts enrol  | led for I | Field Pi | rojects /  |
|  |            |          |            |              |   | Inter      | nships    |          |            |
| B.Sc. Chemistry  |            |          |            | 134          |   |            |           |          |            |
| 1.4 Feedback Syste   |            |          |            |              |   |            |           |          |            |
| 1.4.1 Whether struct   | ured feed  | dback r  | received f | rom all the  | stakel                                  | nolders.   |           |          |            |
| 1) Students  | 2) Teach   | iers     | 3) Em      | ployers      | 4) Al                                   | umni       | 5)        | ) Parent | ts         |
| Yes/ No  | Yes/ No    |          | Yes/ ]     | No           | Yes/                                    | No         | Y         | es/ No   |            |
| 1.4.2 How the feedb  | ack obto   | ined in  | heing an   | alvzed and   | l<br>utiliza                            | d for ove  | arall day | alonmo   | ent of the |
| institution? (maximu   |            |          | ochig all  | aryzcu anu   | utilize                                 | a for ove  | ran uev   | Ciopine  | in or the  |
| Our college has a mec  |            |          | feedback   | from studer  | nts on C                                | Curriculur | n. By ana | alvzing  | these      |
| feedbacks; suggestion  |            |          |            |              |   |            | •         | •        |            |
| our teaching staff men   |            |          |            |              |   |            |           |          |            |
| feedbacks and respons  |            |          |            |              |   |            |           |          |            |
| case studies, field stud   |            |          |            |              |   |            |           |          |            |
| animations. Stakehold  | er can ser | nd their | teedback   | offline as w | ell as o                                | nline thro | ough coll | ege web  | osite.     |
|  |            |          |            |              |   |            |           |          |            |
|  |            |          |            |              |   |            |           |          |            |

| CRITERION II -TEACHING-LEARNING AND EVALUATION |                           |                       |  |  |  |
|--|---------------------------|-----------------------|--|--|--|
| 2.1 Student Enrolment and Profile              |                           |                       |  |  |  |
| 2.1. 1 Demand Ratio during the year            |                           |                       |  |  |  |
| Name of the Number of Students Enrolled        |                           |                       |  |  |  |
| Programme                                      | Number of seats available | applications received |  |  |  |

| B.Sc.  | 406 | 2300 | 406 |
|--------|-----|------|-----|
| B.C.A. | 60  | 39   | 39  |

# 2.2 Catering to Student Diversity

2.2.1. Student - Full time teacher ratio (current year data)

| Year  | Number of students | Number of          | Number of full  | Number of full   | Number   |
|-------|--------------------|--------------------|-----------------|------------------|----------|
| 1 Cai |                    |                    |                 |                  |          |
|       | enrolled in the    | students enrolled  | time teachers   | time teachers    | of       |
|       | institution (UG)   | in the institution | available in    | available in the | teachers |
|       |                    | (PG)               | the institution | institution      | teaching |
|       |                    |                    | teaching only   | teaching only    | both UG  |
|       |                    |                    | UG courses      | PG courses       | and PG   |
|       |                    |                    |                 |                  | courses  |
|       |                    |                    |                 |                  |          |
|       |                    |                    |                 |                  |          |

# 2.3 Teaching - Learning Process

2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

| Number of        | Number of      | ICT tools and | Number of   | Number of  | E-         |
|------------------|----------------|---------------|-------------|------------|------------|
| teachers on roll | teachers using | resources     | ICT enabled | smart      | resources  |
|                  | ICT (LMS, e-   | available     | classrooms  | classrooms | and        |
|                  | Resources)     |               |             |            | techniques |
|                  |                |               |             |            | used       |
| 32               | 32             | Projector,    | 4           | 0          | Expert     |
|                  |                | Laptop, PC,   |             |            | lecture    |
|                  |                | Wifi          |             |            | videos     |

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

#### 2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

Yes. Student Mentoring System is available in institute. Each faculty is the mentor of a group of students. Mentor mentee interactions starts before joining the institute till end, by providing advice regarding choice of elective subject and through semester teaching and project work, Laboratory practical, industrial visit and much moreto the students till end of college by giving prospect of further education and employment, etc. During college period students continuously monitor, counsel, guide and motivate mentee's with altogethereducational matters and difficulties.

When students encounter with any Educational difficulty they are mentored by communicating sessions other than the regular classroom / laboratory contact hours.

Mentors meet their students and guide them with their studies and extra-curricular activities.

The mentors act as guides to the students during their final projects. Individual recognition and encouragement.

The mentoring system ensures that the students adapt to the Educational system and enhance himself for highly successful careers by guiding.

Enhances the students' confidence and challenges them by setting higher goals, taking risks and ultimately guiding them to achieve higher levels.

Students get an insider's perspective on navigating educational goals and career in the right channel.

The institute has an integrated mentoring system where the faculty acts as a link between the students and the institution.

The HODs (Head of the Department) of various Departments also act as a mentor and monitor different activities of the assigned mentors and the students.

The HODs when needed advices mentors of his/her department and sometime review the Mentoring System. Also suggest and advise mentors whenever necessary. Routine advice on balancing of academic and professional responsibilities. Also, Initiate administrative action on a student orpsychosocial support at the time when necessary.

Mentors act as role models and facilitate leadership by developing the interpersonal skills and helping students thrive in competitive environments.

Students get access to a support system (Mentors) during the crucial stages of their academic, professional and intellectual development.

Students get an exposure to diverse academic and professional perspectives, and experiences in various fields. Some mentors also keep contact with the students even after their graduation.

| Number of students enrolled in the institution | Number of fulltime teachers | Mentor: Mentee Ratio |
|--|-----------------------------|----------------------|
| 1045   | 32                          | 1:33                 |

| 2.4 Teach  | ner Profile and Q | uality              |  |         |  |                          |
|--|-------------------|---------------------|--|---------|--|--------------------------|
| 2.4.1 Nur  | nber of full time | teachers appoint    | ed during the y  | ear     |  |                          |
|  |                   | No. of filled posit | ions Vacan<br>position   | ons     | Positions filled<br>during the current<br>year | No. of faculty with Ph.D |
|  | 45 29             |                     | 1.   | 1       | 6  | 22                       |
| (received awards, recognition, fellowships at State, Novernment, recognised bodies during the year)  Year of Name of full time teachers receiving award awards from state level, national level, international level |                   | ar) ing Desi        | Designation Name of the award, fellowship, received from Government or |         |  |                          |
| NIL  | NIL               |                     | NIL  |         | recognized bodie                               | <i>2S</i>                |
| 2.5 Evalu  | lation Process an | d Reforms           |  |         |  |                          |
| 2.5.1 Nun  |                   |                     | ter-end/ year- en  | nd exam | ination till the decla                         | aration                  |
| Programn   |                   | Semester/ year      | Last date of the   | e last  | Date of declaration                            | of                       |

| Name   | Code |            | semester-end/ year- | results of semester-end/ |
|--------|------|------------|---------------------|--------------------------|
|        |      |            | end examination     | year- end examination    |
| B.Sc.  |      |            | 18/03/2017          | 16/05/2017               |
| B.C.A. |      | Semester-6 | 18/03/2017          | 15/05/2017               |

2.5.2 Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

As the college is affiliated with Saurashtra University it follows the Continuous Internal Evaluation System prescribed by the university.

H & HB Kotak institute of science follow the regulations and evaluation process of the affiliating Saurashtra University. In the beginning of the academic year all students are oriented about the internal and external evaluation process. The faculty members give the instructions even in the classrooms and copy of the same is also displayed on the student's notice board. Students and parents are clearly made aware of the eligibility conditions required to appear in the final exam.

The evaluation is the core and integral part of the teaching learning process. The internal examination committee of the senior faculties conducts meeting to decide internal evaluation time table.

The internal evaluation weightage of 30 % is divided in three parts –

- (1)10 % for classroom MCQ test
- (2) 10 % Assignment
- (3) 10 % seminar presentation and quiz or Assignment (For final year student)

Student has to score minimum 12 marks out of 30 marks to get through to be eligible for the university exam.

Evaluation of remaining 70 % is done by external university exam.

Internal evaluation of 30 % practical mark done on the basis of

- (4) 10 % for Practical viva
- (5) 10 % Journal presentation & regularity
- (6) 10 % Lab performance and scientific approach

During the orientation programme newly admitted students are updated about the attendance required and minimum marks required in the CBCS system both at internal and external evaluation. In internal evaluation gracing is given at the institutional level if required. The evaluation reforms of the university are followed in the best of the spirit to keep evaluation process fare and transparent.

The H & HB Kotak Institute of Science has been following the improved examination system as prescribed by the affiliating university with the introduction of CBCS since June 2010. Those faculty members appointed as paper setter and examiner are also participating in university examination process.

At institutional level under the leadership of head of the institution and examination committee every faculty member is assigned examination duty of block supervisor, senior supervisor and reliever.

The members of examination committees monitor and observe all examination blocks through CCTV and give the instruction to block supervisor and students if required.

Senior supervisor are in continuous monitoring during internal and external exams.

The final evaluation and gradation of subjects of elective generics is done at the institutional level

**2.5.3** Academic calendar prepared and adhered for conduct of Examination and other related matters

The H & HB Kotak Institute of Science follow academic calendar of the Saurashtra University.

In the beginning of the academic year the affiliating university provides academic calendar including the schedule of continuous internal evaluation. The affiliating university introduced Choice Based Credit System (CBCS) of evaluation form Jun 2010. The evaluation process can also be accessed from the affiliating university website.

The rules and regulation regarding examination are communicated to students in the orientation programme. Information regarding the evaluation process is put up on the students' notice board and circulated it in every class and also communicated through intercom system. More over the faculty members inform their respective departmental students during classroom teaching. The same is also communicated to parents during the parents-teachers association meeting.

# 2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

#### NIL

2.6.2 Pass percentage of students

| Programme | Programme | Number of students         | Number of students | Pass Percentage |
|-----------|-----------|----------------------------|--------------------|-----------------|
| Code      | name      | appeared in the final year | passed in final    |                 |
|           |           | examination                | semester/year      |                 |
|           |           |                            | examination        |                 |
|           |           |                            |                    |                 |
|           |           |                            |                    |                 |

# 2.7 Student Satisfaction Survey

2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

NIL

# CRITERION III - RESEARCH, INNOVATIONS AND EXTENSION

#### 3.1 Resource Mobilization for Research

3.1.1 Research funds sanctioned and received from various agencies, industry and other organisations

| Nature of the Project | Duration | Name of the | Total grant | Amount received during the |
|-----------------------|----------|-------------|-------------|----------------------------|
|                       |          | funding     | sanctioned  | Academic year              |
|                       |          | Agency      |             |                            |
| Major projects        | NIL      | NIL         | NIL         | NIL                        |
| Minor Projects        | 2        | UGC         | 385000      | 2014-15                    |
| Minor Projects        | 2        | UGC         | 120000      |                            |
| Interdisciplinary     | NIL      | NIL         | NIL         | NIL                        |
| Projects              | NIL      | NIL         | NIL         | NIL                        |
| Industry sponsored    | NIL      | NIL         | NIL         | NIL                        |
| Projects              | NIL      | NIL         | NIL         | NIL                        |
| Projects sponsored by |          |             |             |                            |
| the University/       | NIL      | NIL         | NIL         | NIL                        |
| College               |          |             |             |                            |
| Students Research     |          |             |             |                            |
| Projects              |          |             |             |                            |
| (other than           | NIL      | NIL         | NIL         | NIL                        |
| compulsory by the     |          |             |             |                            |
| College)              |          |             |             |                            |

| International Projects | NIL | NIL | NIL    | NIL     |
|------------------------|-----|-----|--------|---------|
| Any other(Specify)     | NIL | NIL | NIL    | NIL     |
| Total                  | 2   | UGC | 505000 | 2014-15 |
|                        |     |     |        |         |

| 3.2 Innovation Ecosystem   |               |           |                      |                  |                             |  |  |
|--|---------------|-----------|----------------------|------------------|-----------------------------|--|--|
| 3.2.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry- |               |           |                      |                  |                             |  |  |
| Academia Inno  | ovative prac  | tices du  | ring the year        |                  |                             |  |  |
| Title of Works   | shop/Semina   | ar        | Name of the          | Dept.            | Date(s)                     |  |  |
| NI   | L             |           | NIL                  |                  | NIL                         |  |  |
|  |               |           |                      |                  |                             |  |  |
| 3.2.2 Awards f   | or Innovation | on won    | by Institution/Teac  | hers/Research so | cholars/Students during the |  |  |
| year   |               |           |                      |                  |                             |  |  |
| Title of the   | Name of       | f the     | Awarding             | Date of Award    | Category                    |  |  |
| innovation   | Award         | lee       | Agency               |                  |                             |  |  |
| NIL  | NIL           | ,         | NIL                  | NIL              | NIL                         |  |  |
|  |               |           |                      |                  |                             |  |  |
| 3.2.3 No. of In  | cubation ce   | ntre crea | ated, start-ups incu | ıbated on campu  | s during the year           |  |  |
| Incubation (   | Centre        |           | Name                 |                  | Sponsored by                |  |  |
| NIL NIL  |               |           | NIL                  |                  |                             |  |  |
|  |               |           |                      |                  |                             |  |  |
| Name of the Start-up   |               | N         | lature of Start-up   | Da               | te of commencement          |  |  |
| NIL  |               |           | NIL                  | NIL              |                             |  |  |
|  |               |           |                      | <u> </u>         |                             |  |  |

| 3.3 Re  | 3.3 Research Publications and Awards   |                 |                 |               |                              |  |  |
|---------|--|-----------------|-----------------|---------------|------------------------------|--|--|
| 3.3.1 I | ncentive to the teac   | hers who rece   | ive recognition | on/awards     |                              |  |  |
| State   |  | Nationa         |                 |               | International                |  |  |
| NIL-    |  | 01 (with        | no incentive    | es)           | NIL                          |  |  |
| 3.3.2 P | h. Ds awarded duri   | ng the year (a  | pplicable for   | PG College, I | Research Center)             |  |  |
|         | Name of the Depar  | tment           |                 | No. of        | Ph. Ds Awarded               |  |  |
|         | Mathematics  |                 |                 | 01 (Not affil | iated with this college)     |  |  |
|         |  |                 |                 |               |                              |  |  |
| 3.3.3 R | Research Publication   | ns in the Journ | nals notified o | on UGC websi  | te during the year           |  |  |
|         | Department   | No. of Pub      | olication       | A             | verage Impact Factor, if any |  |  |
|         | PHYSICS  |                 | 0               |               |                              |  |  |
| Nati    | CHEMISTRY  |                 | 2               |               |                              |  |  |
| onal    | MATHS  |                 | 6               |               |                              |  |  |
| /Inter  | STATISTICS   |                 | 3               |               |                              |  |  |
| natio   | BOTANY   |                 | 0               |               |                              |  |  |
| nal     | ZOOLOGY  |                 | 0               |               |                              |  |  |
|         | ENGLISH  |                 | 0               |               |                              |  |  |
|         |  |                 |                 |               |                              |  |  |
|         | 3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International |                 |                 |               |                              |  |  |
| Confer  | Conference Proceedings per Teacher during the year   |                 |                 |               |                              |  |  |
|         | Department No. of publication  |                 |                 |               |                              |  |  |

| PHYSICS     | 7 |
|-------------|---|
| CHEMISTRY   | 4 |
| MATHEMATICS | 1 |
| BOTANY      | 0 |
| ZOOLOGY     | 0 |
| STATISTICS  | 2 |

3.3.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index

| Title of the paper   | Name of the author | Title of the journal   | Year of publication | Citation<br>Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citations |
|--|--------------------|--|---------------------|-------------------|---|--|
| On Spectral Properties in<br>Vector-valued Beurling<br>Algebra           | M K Kansagara      | Internatio<br>nal<br>Journal of<br>Mathemat<br>ics and<br>Soft<br>Computin<br>g. | 2016                |                   | Mathematics   |  |
| Some New Permutation<br>Graphs<br>Page No.: 209-215                      | G V Ghodasara      | Internatio<br>nal<br>Journal of<br>Mathemat<br>ical<br>Archive<br>Vol.7 No.      | 2016                |                   | Mathematic<br>s   |  |
| Fibonacci Cordial Labeling<br>of Some Special Graphs<br>Page No.:133-144 | G V Ghodasara      | Annals of Pure and Applied Mathemat ics Volume 11,Numbe r1                       | 2016                |                   | Mathematic<br>s   |  |
| Snakes Related Sum Perfect Square Graphs Page No.:157-168                | G V Ghodasara      | Internatio<br>nal<br>Journal of<br>Mathemat<br>ics And its<br>Applicatio<br>ns.  | 2016                |                   | Mathematic<br>s   |  |

|   |               | Volume 4,<br>Issue 3A.  |  |                 |
|---|---------------|---|--|-----------------|
| Square Divisor Cordial, Cube Divisor Cordial and Vertex Odd Divisor Cordial Labeling of Graphs Page No: 118-122 | G V Ghodasara | Internatio nal Journal of Mathemat ics Trends and Technolog y, Volume 39,Numbe r2 | 2016                                       | Mathematic<br>s |
| "MOBILE PHONE USAGE<br>FOR THE COLLEGE<br>STUDENTS"<br>Page 22-23   | N R Desai     | ACADEMI<br>C<br>DISCOVE<br>RY<br>REVIEW   | Vol. VIII  August  2016                    | STATISTICS      |
| "RELEVANCE AND SIGINIFICANCE OF STATISTICAL APPLICATION IN SOCIAL SCIENCE RESEARCH"  Page 21-26                 | N R Desai     | SPUNK<br>MULTIDI<br>CIPLINAR<br>Y<br>RESEARC<br>H<br>JOURNAL                      | Vol. 2,<br>Issue 2 (II)<br>October<br>2016 | STATISTICS      |
| "APPLICATION OF ONE WAY, TWO WAY AND THREE WAY CLASSIFICATION IN MANAGEMENT" Page 8-20                          | N R Desai     | VIEW OF<br>SPACE  | Volume-I Issue 6-7-8 Oct., Nov., Dec2016   | STATISTICS      |
| Evaluation of 4-Hydroxy-coumarin derivatives as antimicrobial agents  | M G Borisagar | Journal of<br>Chemical<br>and<br>Pharmaceut<br>ical<br>Research                   | V-8,I-9,<br>2016                           | Chemistry       |
| Synthesis & Antimicrobial activity of new condensed coumarin-4 acetohydrazide                                   | M G Borisagar | Acto<br>Chimica &<br>Pharmaceut<br>ica Indica                                     | 6(4) 2016                                  | chemistry       |

| 3.3.61              | 3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science) |                      |                     |            |   |                |                                       |             |
|---------------------|--|----------------------|---------------------|------------|---|----------------|---------------------------------------|-------------|
| Title of the pape r | Name of the author   | Title of the journal | Year of publication | h-index    | Number of citations Institu<br>excluding self citations mention |                | Institutio<br>mentione<br>publication |             |
|                     |  |                      |                     |            |   |                |                                       |             |
| 3.3.7 ]             | Faculty partic   | ipation in Se        | eminars/Confe       | erences an | d Symposia  | a during the y | year :                                |             |
| No.                 | of Faculty   | International level  |                     | Natio      | nal level   | State le       | evel                                  | Local level |
| Attend              | ded  |                      |                     |            |   |                |                                       |             |
| Semin               | nars/  |                      |                     |            |   |                |                                       |             |
| Works               | shops  |                      |                     |            |   |                |                                       |             |
| Preser              | nted papers  |                      | 1                   |            |   |                |                                       |             |
| Resou               | rce Persons  |                      |                     |            |   |                |                                       |             |
|                     |  |                      |                     |            |   |                |                                       |             |

# **3.4 Extension Activities**

3.4.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

| Title of the Activities   | Organising unit/<br>agency/ collaborating<br>agency | Number of teachers <b>co-ordinated</b> such activities | Number of students participated in such activities |
|---------------------------|---|--|--|
| Guru Purnima              | NSS Unit  | 20   | 400  |
| Tree Plantation           | NSS Unit  | 15   | 300  |
| Water Harvesting Pits     | NSS Unit  | 4  | 50   |
| Poster Competition with   |   |  |  |
| Social Message            | NSS Unit  | 2  | 10   |
| Creative & Science Poster |   |  |  |
| Competition               | NSS Unit  | 4  | 50   |
| Rangoli Competition with  |   |  |  |
| Social Message            | NSS Unit  | 5  | 30   |
| Blood Donation Camp       | NSS Unit  | 15   | 100  |
| Girnar Mountain Tour      | NSS Unit  | 5  | 90   |

| 3.4.2 Awards and recognition received for extension activities from Government and other |                   |                 |                 |  |  |  |
|--|-------------------|-----------------|-----------------|--|--|--|
| recognized bodies durin  | ng the year       |                 |                 |  |  |  |
| Name of the Activity   | Award/recognition | Awarding bodies | No. of Students |  |  |  |
|  |                   |                 | benefited       |  |  |  |
| NIL  | NIL               | NIL             | NIL             |  |  |  |

3.4.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the Organising Name of the scheme unit/ agency/ collaborating agency activity teachers coordinated such activities

Swachhta NSS Unit College Cleaning 5 1000

| selience             | collaborating agency | detivity  | coordinated such activities | activities |
|----------------------|----------------------|---|-----------------------------|------------|
| Swachhta<br>Abhiyaan | NSS Unit             | College Cleaning & Classrooms & Lab. Decoration | 5                           | 1000       |
| Swachhta<br>Abhiyaan | NSS Unit             | Dust bin<br>Distribution                        | 5                           | 30         |

| 3.5 Collab  | orations          |                      |             |             |               |                          |
|-------------|-------------------|----------------------|-------------|-------------|---------------|--------------------------|
| 3.5.1 Num   | ber of Collabora  | ative activities for | or researc  | h, facu     | ılty exchang  | ge, student exchange     |
| during the  | year              |                      |             |             |               |                          |
| Nature      | of Activity       | Participant          |             | e of fir    | nancial<br>rt | Duration                 |
|             |                   |                      |             |             |               |                          |
| 3.5.2 Link  | ages with institu | itions/industries    | for interns | ship, o     | n-the-job tr  | aining, project work,    |
| sharing of  | research faciliti | es etc. during th    | e year      |             |               |                          |
| Nature of   | Title of the      | Name of the p        | artnering   | D           | Ouration      | Participant              |
| linkage     | linkage           | institution/ in      | ndustry     | <b>(F</b> ) | rom-To)       |                          |
|             |                   | /research la         | b with      |             |               |                          |
|             |                   | contact de           | etails      |             |               |                          |
| Industrial  | Training          | NFDD,RAJKOT          |             | 27-01       | L-2017        | 13 STUDENT               |
| training    |                   |                      |             |             |               |                          |
| T 1 4 1 1   | Tarining          | Davida in divetuia   |             | 12.01       | 2017          | 20 attribute             |
| Industrial  | Training          | Parle industries     |             | 12-01       | L-2017        | 39 students              |
| training    |                   |                      |             |             |               |                          |
|             |                   | l                    |             | l           |               |                          |
| 3.5.3 MoU   | Is signed with in | stitutions of nat    | ional, inte | rnatio      | nal importar  | nce, other universities, |
| industries, | corporate house   | es etc. during the   | e year      |             |               |                          |
| Orga        | anisation         | Date of MoU          | Purpose     | and         | Numb          | er of students/teachers  |
|             |                   | signed               | Activit     | ies         | parti         | cipated under MoUs       |
|             |                   |                      |             |             |               | •                        |

| CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES                               |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| 4.1 Physical Facilities  |  |  |  |  |  |  |  |
| 4.1.1 Budget allocation, excluding sa  | lary for infrastructure augmentation during the year |  |  |  |  |  |  |
| Budget allocated for infrastructure Budget utilized for infrastructure development |  |  |  |  |  |  |  |
| augmentation   | <del>-</del>   |  |  |  |  |  |  |

NIL

NIL

NIL

**NIL** 

| NIL  |               |            |           |        | NIL      |             |                            |  |  |  |  |  |
|--|---------------|------------|-----------|--------|----------|-------------|----------------------------|--|--|--|--|--|
| 4.1.2 Details of augmentation in infrastructure facilities during the year |               |            |           |        |          |             |                            |  |  |  |  |  |
|  | nentation in  | infrastruc | cture fac | :111t1 |          |             |                            |  |  |  |  |  |
| Facilities   |               |            |           |        | sting    | Newly added |                            |  |  |  |  |  |
| Campus area  |               |            |           |        | 2632     | NIL         |                            |  |  |  |  |  |
| Sq.Mt.   |               |            |           |        |          |             |                            |  |  |  |  |  |
| Class rooms  |               |            |           |        | ļ        | 11          | NIL                        |  |  |  |  |  |
| Laboratories   |               |            |           |        |          | 14          | NIL                        |  |  |  |  |  |
| Seminar Halls  |               |            |           |        | ł        | IIL .       | NIL                        |  |  |  |  |  |
| Classrooms with LC   |               |            |           |        |          | 4           | NIL                        |  |  |  |  |  |
| Classrooms with Wi   |               |            |           |        |          | 2           | NIL                        |  |  |  |  |  |
| Seminar halls with I   | CT facilities | S          |           |        |          | IIL I       | NIL                        |  |  |  |  |  |
| Video Centre   |               |            |           |        | N        | IIL         | NIL                        |  |  |  |  |  |
| No. of important equ   |               | rchased (≥ | ≥ 1-0 lak | ch)    |          |             |                            |  |  |  |  |  |
| during the current ye  |               |            |           |        |          |             |                            |  |  |  |  |  |
| Value of the equipme   | ent purchase  | ed during  | the year  | •      |          |             |                            |  |  |  |  |  |
| (Rs. in Lakhs)   |               |            |           |        |          |             |                            |  |  |  |  |  |
| Others   |               |            |           |        |          |             |                            |  |  |  |  |  |
|  |               |            |           |        |          |             |                            |  |  |  |  |  |
| 4.2 Library as a Lea   | arning Res    | ource      |           |        |          |             |                            |  |  |  |  |  |
| 4.2.1 Library is autor   | mated {Inte   | grated Lib | orary Ma  | anag   | gement l | System -    | ILMS}                      |  |  |  |  |  |
| Name of the ILMS   | Nature of a   | automatio  | n         | Ve     | rsion    |             | Year of automation         |  |  |  |  |  |
| software   | (fully or pa  | artially)  |           |        |          |             |                            |  |  |  |  |  |
|  | ( J . I .     | <i>J</i> / |           |        |          |             |                            |  |  |  |  |  |
| 4.2.1 Library Service  | es:           |            |           |        |          |             |                            |  |  |  |  |  |
| <b>,</b>   | Exist         | ing        | Newl      | v ad   | ded      |             | Total                      |  |  |  |  |  |
|  | No.           | Value      | No.       |        | Value    | No.         | Value                      |  |  |  |  |  |
| Text Books   | 3888          |            | 0         |        | 0        | 3888        |                            |  |  |  |  |  |
| Reference Books  | 19173         | 88324      | 115       | $\top$ | 78480    | 19288       | 166804                     |  |  |  |  |  |
| e-Books  | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| Journals   | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| e-Journals   | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| Digital Database   | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| CD & Video   | 9             | 1285       | 0         |        | 0        | 9           | 1285                       |  |  |  |  |  |
| Library automation   | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| Weeding (Hard &  |               | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
| Soft)  |               |            |           |        | -        |             |                            |  |  |  |  |  |
| Others (specify)   | 0             | 0          | 0         |        | 0        | 0           | 0                          |  |  |  |  |  |
|  | per of books  | s purchase | d after 2 | 2013   | 3-14 and | d their val | ues are shown in the table |  |  |  |  |  |

| 4.3 IT I | nfrastruc   | ture             |                 |                     |                        |        |                    |                              |        |  |  |  |
|----------|---|------------------|-----------------|---------------------|------------------------|--------|--------------------|------------------------------|--------|--|--|--|
|          | 4.3.1 Technology Upgradation (overall)  |                  |                 |                     |                        |        |                    |                              |        |  |  |  |
|          | Total<br>Computers  | Computer<br>Labs | Internet        | Browsing<br>Centres | Computer<br>Centres    | Office | Departments        | Available band width (MGBPS) | Others |  |  |  |
| Existing | 75  | 2                | All departments | 1                   | 1                      | 5      | 7                  | 10                           |        |  |  |  |
| Added    | NIL   | NIL              | NIL             | NIL                 | NIL                    | NIL    | NIL                | NIL                          |        |  |  |  |
| Total    | 75  |                  | All departments | 1                   | 1                      | 5      | 7                  | 10                           |        |  |  |  |
|          | cility for e  |                  |                 |                     |                        |        |                    |                              |        |  |  |  |
|          |   | IBPS /GBF        |                 |                     |                        |        |                    |                              |        |  |  |  |
| Name of  | the e-cont  | ent develo       | pment facilit   |                     | ovide the<br>d recordi |        | ne videos an<br>ty | nd media c                   | entre  |  |  |  |
| NIL      |   |                  |                 | N                   | L                      |        |                    |                              |        |  |  |  |
| CEC (Un  | 4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc |                  |                 |                     |                        |        |                    |                              |        |  |  |  |
| Name of  |   | Name of the      | •               |                     | atform or              |        |                    | launching                    | e -    |  |  |  |
| teacher  |   | t tallio of th   |                 |                     | odule is d             |        |                    |                              |        |  |  |  |
| NIL      |   | NIL              |                 | N                   | IL                     | •      | NIL                |                              |        |  |  |  |

| 4.4 Maintenance of Campus Infrastructure  |                         |                 |                         |  |  |  |  |  |  |  |
|---|-------------------------|-----------------|-------------------------|--|--|--|--|--|--|--|
| 4.4.1 Expenditure incurred on maintenance of physical facilities and academic support |                         |                 |                         |  |  |  |  |  |  |  |
| facilities, excluding salary  | component, during the y | /ear            |                         |  |  |  |  |  |  |  |
| Assigned budget on  | Expenditure incurred    | Assigned budget | Expenditure incurred on |  |  |  |  |  |  |  |
| academic facilities   | on maintenance of       | on physical     | maintenance of physical |  |  |  |  |  |  |  |
|   | academic facilities     | facilities      | facilities              |  |  |  |  |  |  |  |
|   |                         |                 |                         |  |  |  |  |  |  |  |

4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (*maximum 500 words*) (information to be available in institutional Website, provide link)

The college is run by Government of Gujarat. Maintenance of civil works and electric works of the college building and infrastructure is the responsibility of Road & Building Department. The new civil and electric work, augmentation and maintenance of government buildings are done by R&B Department regularly. Maintenance of government buildings is one of the functions of R&B Department. Our college is one of them. R&B Department prepares budget of all the government buildings and spends money for them. Therefore R&B cannot give us budgets and expenses done by them to the college separately. Instruments, equipments and other aids are purchased and maintained by the college. For example, college purchases computer systems and whenever the requirements of the maintenance are produced, college calls respective technician to fix the problem.

| CRITE  | ERION V -     | STUDEN                 | <u>г</u> s | UPPORT A                               | ND P  | PROGRESS    | SION    |            |         |                   |
|--|---------------|------------------------|------------|--|-------|-------------|---------|------------|---------|-------------------|
|  | dent Suppo    |                        | 1 5        | <u>OTTORTA</u>                         | 11111 | ROURED      | 1011    |            |         |                   |
| 5.1.1 S  | cholarships   | and Finar              | cial       | Support                                |       |             |         |            |         |                   |
|  |               | Nar                    | ne /       | Title of the                           |       | Number of   |         | Атош       | at in   | Dupag             |
|  |               |                        | sc         | heme                                   |       | students    |         | Allioui    | .11 111 | Rupees            |
|  | al support    |                        |            |  |       |             |         |            |         |                   |
|  | stitution     |                        |            |  |       |             |         |            |         |                   |
|  | al support f  | rom other              | soui       | rces                                   |       |             |         |            |         |                   |
| a) Natio   | onal          |                        |            |  |       |             |         |            |         |                   |
| b) Inter   | national      |                        |            |  |       |             |         |            |         |                   |
| 5.1.2 N  | umber of ca   | apability ei           | har        | ncement and                            | devel | opment sch  | emes su | ch as Sof  | t skil  | 1                 |
|  |               |                        |            | g, Language                            |       |             |         |            |         |                   |
|  | lling and N   |                        |            |  | ,     | υ           | ,       | <i>U</i> , |         | ,                 |
|  | ne of the cap |                        | T          | Date of                                |       | Numbe       | er of   | Age        | ncies   | involved          |
|  | ancement s    |                        | j          | implementat                            | ion   | students e  | nrolled |            |         |                   |
| S  | SUCEAT E      | xam                    |            | 15/09/2010                             |       | 366         | 5       | Saura      | shtra   | University        |
|  | Seminar       |                        |            | 13/01/2017                             | 7     | 250         | )       | Income     | Tax     | Department        |
| (  | Guest Lectu   | ırer                   |            | 21/02/2017                             | 7     | 200         | )       | Rl         | K Un    | iversity          |
| UDI  | SHA Club      | Library                |            |  |       | 366         | 5       |            | -       |                   |
|  |               | -                      |            |  |       |             |         |            |         |                   |
|  | by the insti  | tution duri            | ng t       | nce for com<br>he year<br>of benefited |       | ve examinat |         | d career c |         | elling  Number of |
| 1 Cai  |               |                        |            |  |       |             |         |            |         |                   |
|  | scheme        |                        |            | by Guidance                            |       | enefited    |         | tudents w  |         | students          |
|  |               |                        |            | petitive                               |       | udents by   |         | nave passe | ed      | placed            |
|  |               | exar                   | nına       | ition                                  |       | areer       |         | n the      |         |                   |
|  |               |                        |            |  | C     | ounselling  | (       | competitiv | /e      |                   |
|  |               |                        |            |  | ac    | ctivities   | 6       | exam       |         |                   |
| 2016-  | Guidance      | 366                    |            |  | 4:    | 50          | -       |            |         |                   |
| 17   | Lecturer &    | &                      |            |  |       |             |         |            |         |                   |
|  | Seminar       |                        |            |  |       |             |         |            |         |                   |
|  |               |                        |            |  | 1     |             |         |            |         |                   |
|  |               |                        |            | transparency<br>and ragging            |       |             |         | dent griev | ance    | es,               |
|  |               |                        | CIIL       | No. of grie                            |       |             |         | ge numba   | r of    | days for          |
| Total grievances received No. of grievances Average number of contract redressed grievance redressal |               |                        |            |  |       | days 101    |         |            |         |                   |
| NIL  |               |                        |            | NIL                                    |       |             | NIL     | iioo iouio | 5541    |                   |
| 5 2 Stu  | dent Progr    | ession                 |            |  |       |             |         |            |         |                   |
|  |               |                        | mer        | nt during the                          | Vear  |             |         |            |         |                   |
| J.4.1 D  |               | npus piace<br>n campus | 11101      |  | year  |             | Off 4   | Campus     |         |                   |
| Na   | me of         | Number                 | of         | Number                                 | N     | Jame of     |         | ber of     | ١       | Number of         |
|  | nizations     | Student                | -          | of                                     |       | anizations  |         | dents      |         | dents Placed      |
| pui  |               | ~                      | -          | <b>V</b> 1                             | ~15   |             | 5.0     |            | ~       |                   |

| Visit                 | ted   | Participated      |                     | dents    | Vi         | sited      | Partici        | pated              |             |                   |
|-----------------------|---|-------------------|---------------------|----------|------------|------------|----------------|--------------------|-------------|-------------------|
| Manpowe               | er Group  | 65                |                     | 37       | E:         | ssen       | 6              |                    |             | 1                 |
| Service               | es for  |                   |                     |          | Polypa     | ckLimited  |                |                    |             |                   |
| Mundra                | Solar   |                   |                     |          | ,.         | Mo.        |                |                    |             |                   |
| Power L               | imited  |                   |                     |          | 7600       | 024474     |                |                    |             |                   |
|                       |   |                   |                     |          |            |            |                |                    |             |                   |
| 5 2 2 Stuc            | lent prog   | ression to high   | er edu              | ıcation  | in perc    | entage di  | ring the v     | ear                |             |                   |
| Year                  |   | of students       |                     | Progra   |            |            | rtment         | Name               | of          | Name of           |
| 1 Cai                 |   |                   |                     | _        |            | _          |                |                    |             |                   |
|                       |   | g into higher     |                     | gradua   | ated from  | -          |                | institut           | .1011       | Programme         |
|                       | educatio  | on                |                     |          |            | from       |                | joined             |             | admitted to       |
| 2016-17               | 197   |                   |                     | B.Sc.    |            | H&H        | B Kotak        | Saurash            | tra         | M.Sc./B.Ed        |
|                       |   |                   |                     |          |            | Institu    | ite of         | Univers            | ity         |                   |
|                       |   |                   |                     |          |            | Science    | ce             |                    |             |                   |
| 5.2.3Stud             | ents qual   | ifying in state/  | natio               | nal/ int | ternation  | nal level  | evaminatio     | ne duri            | na th       | l<br>ne vear (eg: |
|                       | _   | GATE/GMAT/        |                     |          |            |            |                |                    | _           | -                 |
| TELIBEL               |   | ems               |                     |          |            | tudents so |                |                    |             | stration          |
|                       | 100   |                   |                     | 1        |            | ualifying  |                | number/roll number |             |                   |
|                       |   |                   |                     |          | 1          |            |                | for the exam       |             |                   |
| NET                   |   |                   |                     |          |            |            |                |                    |             |                   |
| SET                   |   |                   |                     |          |            |            |                |                    |             |                   |
| SLET                  |   |                   |                     |          |            |            |                |                    |             |                   |
| GATE                  |   |                   |                     |          |            |            |                |                    |             |                   |
| GMAT                  |   |                   |                     |          |            |            |                |                    |             |                   |
| CAT                   |   |                   |                     |          |            |            |                |                    |             |                   |
| GRE                   |   |                   |                     |          |            |            |                |                    |             |                   |
| TOFEL                 |   |                   |                     |          |            |            |                |                    |             |                   |
| Civil Serv            |   | g :               |                     |          |            |            |                | N A                |             |                   |
| State Gov<br>Any Othe |   | Services          |                     |          | 6          |            |                | N.A.               |             |                   |
| Ally Othe             | 1   |                   |                     |          |            |            |                |                    |             |                   |
| 5.2.4 Spo             | rts and cu  | ıltural activitie | s / coi             | mpetiti  | ons org    | anised at  | the institu    | tion lev           | el di       | ring the          |
| year                  | rts arra ce   | stronar activitie | <i>5</i> , <b>C</b> | преш     | 0115 015   | annoca ac  | tile illistice |                    | or ac       |                   |
| Activ                 | ity   |                   | I                   | Level    |            |            |                | Partio             | cipar       | nts               |
| Saptac                |   |                   |                     |          |            |            |                |                    |             |                   |
| 34 acti               | vities  |                   | C                   | ollege   |            |            |                | 10                 | 000         |                   |
| 5.3 Stude             | nt Partic   | cipation and A    | ctivit              | ties     |            |            |                |                    |             |                   |
|                       |   | wards/medals f    |                     |          |            |            | -              |                    | activ       | rities at         |
| Year                  | national/international level (award for a Year Name of the award/ National |                   | ional/              |          | Sports     | Cultural   | Studer         | nt                 | Name of     |                   |
| 1 541                 |   |                   | rnation             |          | - P - 1 to | Canalai    | ID             |                    | the student |                   |
|                       |   |                   |                     |          |            |            |                | numbe              | er          |                   |
|                       |   |                   |                     |          |            |            |                |                    |             |                   |
| 5001                  |   | 1. 1 . 0          | 1.0                 |          |            | C . 1      |                |                    | 1 .         | • , ,•            |
|                       | -   | Student Counci    |                     | -        |            |            | s on acade     | mic & a            | ıdmi        | nistrative        |
| bodies/co             | mmuees  | of the instituti  | OH (II              | ıaxııııu | ш 300 '    | worus)     |                |                    |             |                   |

# **5.4 Alumni Engagement**

5.4.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

#### **NIL**

5.4.2 No. of-registered enrolled Alumni:

#### **NIL**

5.4.3 Alumni contribution during the year (in Rupees):

#### NIL

5.4.4 Meetings/activities organized by Alumni Association:

NIL

# CRITERION VI -GOVERNANCE, LEADERSHIP AND MANAGEMENT

# 6.1 Institutional Vision and Leadership

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

# **Response:**

The principal, IQAC coordinator and senior faculty members play vital role in policy decisions. As and when any important decision regarding institute is taken meeting is conducted with the entire teaching and non-teaching staff members, there by invite suggestions from all. Oral feedback from the parents is taken every year and their suggestions are honored.

As a case the principal and the IQAC coordinator planned for NAAC preparation and conducted meetings with staff members to explain the key-indicators of all criteria to collect data from each department and compile it for AQAR and SSR in given format. Thus, maximum staff members contributed to the common cause of the college and the principles of decentralization and participation were executed.

The principal constitutes different committees at the beginning of each academic year and all teaching and non-teaching staff work as the committee members. These committees are as follows:

| Admission Committee            | • IQAC                    |
|--------------------------------|---------------------------|
| Time-table Committee           | Grievances Redressal Cell |
| RUSA Committee                 | Women Development Cell    |
| • DELL Committee               | Anti Ragging Cell         |
| AAA Committee                  | • NSS                     |
| • IT Committee                 | • NCC                     |
| Soil Testing Committee         | • Sports                  |
| • E-Waste Management Committee | • BCA                     |
|                                |                           |

| Library Committee                       |                                 |    |
|---|---------------------------------|----|
| • UGC Committee                         |                                 |    |
| • RTI Committee                         |                                 |    |
| Saptadhara Committee                    |                                 |    |
|   |                                 |    |
|   |                                 |    |
|   |                                 |    |
| 6.1.2 Does the institution have a Manag | gement Information System (MIS) | )? |
| Yes/No/Partial:                         |                                 |    |
| Mo                                      |                                 |    |

# **6.2 Strategy Development and Deployment**

6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

- **Curriculum Development**: Curriculum is developed by the university. At least one teacher of the college is a member of Board of Studies of university. Whenever curriculum is designed or developed or reformed, the members contribute in BoS. Before the meeting the members of our college get feedback from respective teachers of their departments, teachers of other colleges and alumni. College principal is a senate member of the university. Head of Chemistry, Physics, Mathematics, Statistics, Botany, Zoology are members of respective BoS. One teacher of Physics Department is a member of Academic Council. One teacher of Botany Department is a member of Biochemistry.
- Teaching and Learning: Teachers intent to teach using projects and computer. All the departments have projector so that the faculty members can use them. They use various teaching methods according to topics. Visits of resources of Botanical gardens and fields, Industrial visit for Chemistry students, Seminar of students, Assignments, Use of library as a resource, Practical sessions of each subject, Projects, etc. make teaching-learning interesting and fruitful to the students.
- Examination and Evaluation: H & HB Kotak institute of science follow the regulations and evaluation process of the affiliating Saurashtra University. In the beginning of the academic year all students are oriented about the internal and external evaluation process. The faculty members give the instructions even in the classrooms and copy of the same is also displayed on the student's notice board. Students and parents are clearly made aware of the eligibility conditions required to appear in the final exam.

The evaluation is the core and integral part of the teaching learning process. The internal examination committee of the senior faculties conducts meeting to decide internal evaluation time table.

The internal evaluation weightage of 30 % is divided in three parts –

- (1)10 % for classroom MCQ test
- (2) 10 % Assignment

(3) 10 % seminar presentation and quiz or Assignment (For final year student) Student has to score minimum 12 marks out of 30 marks to get through to be eligible for the university exam.

Evaluation of remaining 70 % is done by external university exam.

Internal evaluation of 30 % practical mark done on the basis of

- (4) 10 % for Practical viva
- (5) 10 % Journal presentation & regularity
- (6) 10 % Lab performance and scientific approach

During the orientation programme newly admitted students are updated about the attendance required and minimum marks required in the CBCS system both at internal and external evaluation. In internal evaluation gracing is given at the institutional level if required. The evaluation reforms of the university are followed in the best of the spirit to keep evaluation process fare and transparent.

The H & HB Kotak Institute of Science has been following the improved examination system as prescribed by the affiliating university with the introduction of CBCS since June 2010. Those faculty members appointed as paper setter and examiner are also participating in university examination process.

At institutional level under the leadership of head of the institution and examination committee every faculty member is assigned examination duty of block supervisor, senior supervisor and reliever.

The members of examination committees monitor and observe all examination blocks through CCTV and give the instruction to block supervisor and students if required.

Senior supervisor are in continuous monitoring during internal and external exams.

- The final evaluation and gradation of subjects of elective generics is done at the institutional level as well as university level.
- Research and Development: This institute is being an undergraduate college. Students of final year are encouraged to do industrial visit or field visit. During interaction with the industries or field they are sometimes they find some idea regarding the final year project and with the help of industry professional and mentor of the college. By combine efforts of all, students himself try to assess the idea in guided path plus by means of doing reference work and investigate work in a healthy conduct under the guidance. After approaching to an elucidation of the research done by the students, made a project report with a proper format and submit it to the institute.
- Library, ICT and Physical Infrastructure / Instrumentation: During the academic session students have Library facility to use different books and magazines and news paper and much more digital material over the web by using Namo-Wifi. Students are availed by the government scheme to have a Namo-Tablet for his college education as well as internet world of education. In addition to the old educational method college has new ICT based educational methods too. In which, mentors uses interactive seminar, ppt, audio-video lectures, BISAG, miscellaneous learning aids over projector and much more. In Laboratory practical students does practical as per their syllabus on various chemistry, physics and biology instruments as well as del Lab essential for the Mathemetics.
- Human Resource Management:

For Human Resource, Academic and Administrative, the institute is solely dependent on recruitment made by Govt. of Gujarat.

Academic Human Resource: Academic posts Viz; Principal, Professor, Librarian, Sports

Director (PTI) and Lab. Assistants are filled through direct recruitment made by Commissioner of Higher Education- Gujarat. The roster is maintained centrally by the same office.

Administrative Resources; Posts related to administrative work are filled through direct recruitment by respective departments of Govt. of Gujarat.

For Visiting faculties and other Administrative works posts are filled through Outsourcing.

# Industry Interaction / Collaboration

#### Admission of Students:

First year Admission process:

Students' enrolment in First year is merit based where students undergo through process of filling up the admission forms on which merit list is generated as per government reservation policy. On confirmation of the admission, they are allotted subject groups of their choices based on merit.

Second year Admission process:

Students from this college having cleared or backlogs in previous year exam are enrolled first. If seats are found vacate after the admission, students from other institutes affiliated to Saurashtra University are given merit based admissions through admission process as mentioned above

Third year Admission process:

Students from this college having cleared or backlogs in Second year exam are enrolled first. For Final year, Subject choice and allotment is based purely on semester 1-4 cumulative merit. New admissions are given as per availability of seats in respective subjects.

# 6.2.2 : Implementation of e-governance in areas of operations:

- ❖ Planning and Development: All the correspondences with Commissioner of Higher Education and Knowledge Consortium of Gujarat are done through e-mails, Google Docs and Hard copies
- \* Administration: Partially e-governed. Some works are done through computers
- Finance and Accounts: College receives grants and salary made through Integrated Finance Management System
- **Student Admission and Support: Students profile is prepared through computers**
- Examination: Marks of Internal Evaluation are uploaded through the portal of University

| 6.3 | 6.3 Faculty Empowerment Strategies   |                     |                          |           |  |  |  |  |  |  |
|-----|--|---------------------|--------------------------|-----------|--|--|--|--|--|--|
| 6.3 | 6.3.1 Teachers provided with financial support to attend conferences / workshops and towards |                     |                          |           |  |  |  |  |  |  |
| mei | membership fee of professional bodies during the year  |                     |                          |           |  |  |  |  |  |  |
| Yea | nr Name of teacher   | Name of conference/ | Name of the professional | Amount of |  |  |  |  |  |  |

|      |                  | workshop attended for   | body for which    | support |
|------|------------------|-------------------------|-------------------|---------|
|      |                  | which financial support | membership fee is |         |
|      |                  | provided                | provided          |         |
|      | Dr. N. K. Ajudia | Refresher Course        |                   |         |
| 2016 | v                |                         | NIL               | 1000    |
|      | Dr. M. K.        | Defeeds a Comme         |                   |         |
|      | Kansagara        | Refresher Course        |                   |         |
| 2016 |                  |                         | NIL               | 1000    |

6.3.2 Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

| Year | Title of the       | Title of the       | Dates     | No. of       | No. of       |
|------|--------------------|--------------------|-----------|--------------|--------------|
|      | professional       | administrative     | (from-to) | participants | participants |
|      | development        | training programme |           | (Teaching    | (Non-        |
|      | programme          | organised for non- |           | staff)       | teaching     |
|      | organised for      | teaching staff     |           |              | staff)       |
|      | teaching staff     |                    |           |              |              |
| 2016 | Three days         | NIL                | 28-30/    | About 100    |              |
|      | workshop on        |                    | 06/2016   |              |              |
|      | Promotion of       |                    |           |              |              |
|      | culture of quality |                    |           |              |              |
|      | through research   |                    |           |              |              |
|      | _                  |                    |           |              |              |

# 6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

| Title of the professional development  | Number of teachers | Date and Duration        |
|--|--------------------|--------------------------|
| programme                              | who attended       | (from – to)              |
| 46th Three days workshop on Promotion  | 30                 | 28/06/2016-30/06/2016    |
| of culture of quality through research |                    |                          |
| Developing A Module of Teaching        | 1                  | 23/01/2017 to 25/01/2017 |
| Three days Symposium on Modern         | 1                  | 9-11 June 16             |
| Trends Related to Research in Physical |                    |                          |
| Education and Sports Science           |                    |                          |
| One Day Workshop on "National          | 1                  | 27-Sep 2016              |
| Institutional Ranking Framework"       |                    |                          |
| 3S SPACE TECHNOLOGY &                  | 1                  | 17 TO 18 FEB 2017        |
| APPLICATIONS                           |                    |                          |
| Workshop on Value education            | 1                  | Dt. 05-01-2017           |
| Functional Oxides and Nanomaterials    | 1                  | 11-13/11/2016            |
| National Conference on Transforming    | 1                  | 23/04/2017               |
| Libraries in to Digital Era            |                    |                          |
| GENERAL AWARENESS ABOUT                | 1                  | 8 TO 9 APRIL 2016        |
| IPR                                    |                    |                          |
| National Symposium on "Education,      | 6                  | 13 TO 14 FEB 2017        |
| Peace and Terror-free world"           |                    |                          |
| Recent trends in Experimental          | 1                  | 21/03/2017               |

| Condensed Matter Physi    | cs               |         |            |              |                          |                      |
|---------------------------|------------------|---------|------------|--------------|--------------------------|----------------------|
| Recent Trends and Front   |                  |         | 3          | ′            | 22/02                    | /2017-23/02/2017     |
| Chemistry                 |                  |         |            |              |                          |                      |
| One Day Seminar on "P     | reventing Drug   |         | 1          | (            | 30-Ju                    | n-16                 |
| Abuse in Sports           |                  |         |            |              |                          |                      |
| National Seminar on " M   | Iodern           |         | 1          |              | 25-Ju                    | n-16                 |
| Education System: Mult    | idisciplinary    |         |            |              |                          |                      |
| Perspectives"             |                  |         |            |              |                          |                      |
| Rotational excitation ele | ctron collision  |         | 1          | (            | 01-02                    | 2-2017               |
| cross section for nano m  | aterial          |         |            |              |                          |                      |
| sio2,Tio2, ZrO2           |                  |         |            |              |                          |                      |
| Special Winter School     |                  |         | 1          |              | 19/12                    | /2016 to 8/1/2017    |
| Refresher Course in Mat   | hematics         |         | 1          | (            | 02-01                    | -2017 to 21-01-2017  |
| Refresher Course in Mat   | hematics         |         | 1          |              | 07-09                    | 0-2016 to            |
|                           |                  |         |            |              | 27-09                    | 0-2016               |
| RC in Life Sciences       |                  |         | 1          |              | 06-06                    | 5-2016 to 26-06-2016 |
| Refresh Course:Differen   |                  | 1       |            | 19/12        | /2016 to 8/1/2017        |                      |
| of Teaching-Learning Pr   | rocess           |         |            |              |                          |                      |
| E-content devlopment      |                  | 1       |            | 13-2-        | 17 To 19-2-17            |                      |
| One Day Seminar on "Pr    | reventing Drug   |         | 1          | (            | 30-Ju                    | n-16                 |
| Abuse in Sports           |                  |         |            |              |                          |                      |
| National Seminar on " M   | Iodern           |         | 1          | 4            | 25-Ju                    | n-16                 |
| Education System: Mult    | idisciplinary    |         |            |              |                          |                      |
| Perspectives"             |                  |         |            |              |                          |                      |
| STC on E-Content Deve     | lopment          |         | 9          |              | 13/02/2017 to 19/02/2017 |                      |
| STC on Translation stud   | ies              | 1       |            | (            | 03/10/2016 to 09/10/2016 |                      |
| Faculty Improvement Pr    | ogramme on       |         | 2          |              | 3-9 o                    | ct 2016              |
| "New Directives of API"   | ,                |         |            |              |                          |                      |
| National Symposium on     | "Education,      |         | 2          |              | 13-14                    | -/02/2017            |
| Peace and Terror-free w   | orld"            |         |            |              |                          |                      |
| National Conference on    | Algebra,         |         | 3          | 9            | 9-11,                    | February 2017        |
| Analysis & Graph Theor    | y (NCAAG-        |         |            |              |                          |                      |
| 2017)                     |                  |         |            |              |                          |                      |
| 6.3.4 Faculty and Staf    | f recruitment (1 | 10. for | r permane  | ent/fulltime | e recr                   | ruitment):           |
| Teach                     | `                |         | _          |              |                          | aching               |
| Permanent                 |                  | Per     | manent     |              | Fulltime/temporary       |                      |
|                           |                  | ]       | NIL        |              |                          | · ·                  |
| 6.3.5 Welfare schemes     | for              |         |            |              |                          |                      |
| Teaching                  |                  | Co-o    | perative   | Society      |                          |                      |
| Non teaching              |                  |         | perative s |              |                          |                      |
| Students                  |                  | NIL     |            | Juliety      |                          |                      |
| Students                  | 1411             |         |            |              |                          |                      |

# 6.4 Financial Management and Resource Mobilization

- 6.4.1 Institution conducts internal and external financial audits regularly (with in 100 words each)
- 6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

| Name of the non government funding    | Funds/ Grants received in Rs. |                                  | Purpose |  |
|---------------------------------------|-------------------------------|----------------------------------|---------|--|
| agencies/ individuals                 |                               |                                  |         |  |
| Knowledge Consortium of Gujarat       | 60000                         | For Saptadhara (Extra-curricular |         |  |
|                                       |                               | Activities                       |         |  |
| Knowledge Consortium of Gujarat       | 5000                          | Placement, Career Guidance       |         |  |
| Saurashtra University                 | 25000                         | NSS Activities                   |         |  |
|                                       |                               |                                  |         |  |
| 6.4.3 Total corpus fund generated NII |                               |                                  |         |  |

6.4.3 Total corpus fund generated NIL

# **6.5 Internal Quality Assurance System**

6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

| Audit Type     | Ext    | ternal | Inte   | ernal     |
|----------------|--------|--------|--------|-----------|
|                | Yes/No | Agency | Yes/No | Authority |
| Academic       | No     | No     | No     | No        |
| Administrative |        |        |        |           |

# 6.5.2 Activities and support from the Parent – Teacher Association (at least three)

NIL

- 6.5.3 Development programmes for support staff (at least three)
- Use of ICT for correspondance
- 6.5.4 Post Accreditation initiative(s) (mention at least three)

6.5.5

a. Submission of Data for AISHE portal
b. Participation in NIRF
c. ISO Certification
d. NBA or any other quality audit
(Yes /No) Yes
(Yes /No) No
(Yes /No) N.A.

6.5.6 Number of Quality Initiatives undertaken during the year

|       | Name of quality           | Date of conducting | Duration (from       | Number of    |
|-------|---------------------------|--------------------|----------------------|--------------|
| Year  | initiative by IQAC        | activity           | to)                  | participants |
| 2016- | IQAC has also initiated a | 17-02-2017 to 18-  | 17-02-2017 to 18-02- | 120          |
| 17    | two days workshop for 3S  | 02-2017            | 2017                 |              |
|       | Space Technology in       |                    |                      |              |
|       | Higher Education in       |                    |                      |              |
|       | collaboration with Indian |                    |                      |              |
|       | Society of Geomatics in   |                    |                      |              |
|       | February 2017.            |                    |                      |              |
| 2016- | Three days workshop on    | 28-06-2016 to 30-  | 28-06-2016 to 30-    |              |
| 17    | Promotion of culture of   | 06-2016            | 06-2016              | 100          |

| quality through research |  |  |
|--------------------------|--|--|

# CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

# 7.1 - Institutional Values and Social Responsibilities

7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

| Title of the programme             | Period (from-to) | Partic | ipants |
|------------------------------------|------------------|--------|--------|
|                                    |                  | Female | Male   |
| Visit of gynaecologist and solving |                  |        |        |
| health issue                       | October -2016    | 120    | 00     |
| Seminar on women's rights and      |                  |        |        |
| duties                             | October -2016    | 120    | 00     |
| Establishment of Counselling       |                  |        |        |
| Committee                          | June-2016        |        |        |

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources

7.1.3 Differently abled (Divyangjan) friendliness

| Items Facilities                                | Yes/No | No. of Beneficiaries |
|---|--------|----------------------|
| Physical facilities                             | Yes    | 2                    |
| Provision for lift                              | No     | N.A.                 |
| Ramp/ Rails                                     | No     | N.A.                 |
| Braille Software/facilities                     | No     | N.A.                 |
| Rest Rooms                                      | Yes    | 2                    |
| Scribes for examination                         | N.A.   | N.A.                 |
| Special skill development for differently abled |        |                      |
| students  | No     | N.A.                 |
| Any other similar facility                      | NIL    | NIL                  |

# 7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

| Year  | Number of      | Number of     | Date and       | Name of    | Issues       | Number of     |
|-------|----------------|---------------|----------------|------------|--------------|---------------|
|       | initiatives to | initiatives   | duration of    | the        | addressed    | participating |
|       | address        | taken to      | the initiative | initiative |              | students and  |
|       | locational     | engage with   |                |            |              | staff         |
|       | advantages and | and           |                |            |              |               |
|       | disadvantages  | contribute to |                |            |              |               |
|       | _              | local         |                |            |              |               |
|       |                | community     |                |            |              |               |
| 2016- | 2              | 2             | One Day        | Water      | Water        | 35            |
| 17    |                |               |                | Harvesting | harvesting   |               |
|       |                |               |                | pit        | _            |               |
|       |                |               |                | Plantation | Eco-friendly | 30            |
|       |                |               |                |            | Environment  |               |
|       |                |               |                |            |              |               |

# 7.1.5 Human Values and Professional Ethics

| Code of conduct (handbooks) for various stakeholders |             |                          |                |                        |  |  |  |
|--|-------------|--------------------------|----------------|------------------------|--|--|--|
|  |             |                          | Follow         | up (maximum 100 words  |  |  |  |
| Title  | ]           | Date of Publication      |                | each)                  |  |  |  |
| NIL  |             | NIL                      |                | NIL                    |  |  |  |
|  |             |                          |                |                        |  |  |  |
| 7.1.6 Activities conduc                              | ted for pro | motion of universal Valu | es and Ethics  |                        |  |  |  |
| Activity   |             | Duration (fromto)        |                | Number of participants |  |  |  |
| Yoga Celebrati                                       | on          | 15-06-2016 to 21-06-2018 |                | 60                     |  |  |  |
| 7.1.7 Initiatives taken b                            | y the insti | tution to make the campu | s eco-friendly | y (at least five)      |  |  |  |
| Plantation   |             |                          |                |                        |  |  |  |
| Compost pit  |             |                          |                |                        |  |  |  |
| Plastic free campus                                  |             |                          |                |                        |  |  |  |
| Use of solar plant                                   |             |                          |                |                        |  |  |  |
| Drainage of waste of o                               | hemistry    | lab                      |                |                        |  |  |  |

#### **7.2 Best Practices**

Describe at least two institutional best practices

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

1.

Title:

## SOIL TESTING BY COLLEGE STUDENTS

#### Goal:

To help farmers to improve quality of soil.

#### **Context:**

Soil sampling is perhaps the most vital step for any soil analysis. As a very small fraction of the huge soil mass is used for analysis, it becomes extremely important to get a truly representative soil sample of the field. Soil test based nutrient management has emerged as a key issue in efforts to increase

agricultural productivity and production since optimal use of nutrients, based on soil analysis can improve crop productivity and minimize wastage of these nutrients, thus minimizing impact on environmental leading to bias through optimal production. Deficiencies of primary, secondary and micronutrients have been observed in intensive cultivated areas.

#### **Practice:**

H&HB Kotak Institute of Science, Rajkot, with the help of students, conducts five tests to ascertain soil composition. Agriculture department of Gujarat provides samples of soil. College has its separate laboratory for special project where college students test the samples before and after study hours. Student can learn and earn approx Rs.6000 per semester. Chemistry, Botany departments take care of this project. Of the Rs 80 a college gets for each sample, Rs 20 goes to the student who does soil analysis.

#### Success:

As it was the new project of soil testing in Science Colleges many colleges had not its laboratory. Our college set up systemized laboratory and made it exemplary for others. College has been practicing the soil test since 2010. Our college has tested highest number of samples

among science colleges of Gujarat state. Each student earns Rs.20 per sample.

# Problem encountered and resources required:

Initially, the college staff was unaware of the agriculture department\s procedure and that is why the college had sent some staff members for its training in the agriculture department. College needed funds to set up new laboratory and the staff who can work there other than college hours. College had to encourage students and staff in the beginning to dedicate their time for setup. One time fund was provided by the agriculture department for lab setup. As it started to run smoothly and successfully all the other students took interest in and staff also joined in the project. Presently it is running very well.

# 2.

#### Title:

RAINWATER HARVESTING

#### Goal:

To store and recycle the rain water

#### **Context:**

Water is an important natural resource and is the very basis of our life. We use water for drinking, irrigation, industry, transport and for the production of hydro-electricity. Water is a cyclic resource which can be used again and again after cleaning. The best way to conserve water is its judicious use.

Rain water harvesting is one of the most effective methods of water management and water conservation. It is the term used to indicate the collection and storage of rain water used for human, animals and plant needs. It involves collection and storage of rain water at surface or in sub-surface aquifer, before it is lost as surface run off. The augmented resource can be harvested in the time of need.

# **Practice:**

The college has rainwater harvesting pits, to prevent water from going to waste during periods of rainfall. These are placed at various locations on the college campus, and are properly covered to avoid having stagnant water in the open.

A water harvest tank with the capacity of approx. 100000 liters of water has been constructed to hold rain water from Chemistry Building of the college. This water serves to manage distilled water to the Chemistry laboratories for a whole year. The facility has been constructed adhering to government norms on hygiene.

#### **Success:**

College does not need to buy distilled water for experiments of practical of teaching in the laboratories.

# Problem encountered and resources required:

The pits need to be rebuilt in the college campus and the tank needs to renovate periodically. Students prepare pits as a part of extra-curricular activities. Financial fund can be utilized to renovation of the huge tank.

#### 7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust

# Provide the weblink of the institution in not more than 500 words

- One of the oldest science colleges in Saurashtra region (Since 1937).
- The college located at the heart of Rajkot city at the prime location Dr. Yagnik Road, which is easy to locate and frequent transportation is available from any place.
- Vast green campus.
- The college is having huge multipurpose playground.
- Qualified Teaching Staff:

|        | CHEMIST | MATHEMATIC | PHYSIC | STATISTI | BOTANY | ZOOLOG | ENGI |
|--------|---------|------------|--------|----------|--------|--------|------|
|        | RY      | S          | S      | CS       |        | Υ      |      |
| Ph. D. | 8       | 1          | 3      | 1        | 2      | 1      | 2    |
| NET    |         | 2          |        |          |        |        |      |
| GSET   | 2       |            |        |          |        |        |      |
| TOTAL  | 11      | 4          | 7      | 1        | 2      | 1      | 2    |

- 27 (16-Ph.D., 2-NET, 2-GSET,2-GATE, 2-M.ed., 3-LLB)
- Regular librarian with NET and GSET qualified.
- Regular PT instructor with qualification NET twice, GSET and Ph.D.
- Merit based unique admission process for B. Sc. Semester-V.
- It's a government college so the education fee is the least for the students. Tuition fee is waived for the female students.
- Statistics subject is offered in the college which is the only centre in Saurashtra region.
- Offering BCA as a self-finance course.
- Soil testing project

# 8. Future Plans of action for next academic year (500 words)

- To follow the initiatives of the Government.
- To introduce some vocational courses.
- To continue the courses of finishing program.
- To continue the soil testing project.
- To increase use of ICT in the teaching-learning process.
- To organize national conference.
- To organize state level seminar of IQAC.
- To construct new building of the college or augmentation of college building for adequacy of classrooms, Chemistry laboratory, toilets, etc if grant is released by the government.
- To enhance Office Management System
- To establish Incubation Centre for Innovations & Intellectual Property Rights.

K

Name: Chotaliya N.T.

Signature of the Coordinator, IQAC

Principal

H. & H.B. Kotak Institute of Science

Rajkot

Name: Dr. Ranjana A. Agarwal

Signature of the Chairperson, IQAC

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