

The Annual Quality Assurance Report (AQAR) of the IQAC
(For Affiliated/Constituent Colleges)

A.Y. 2013-14

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: hhbksiqac@gmail.com

3. Website address: kotaksciencecollege.co.in

Web-link of the AQAR: (Previous Academic Year):
http://kotaksciencecollege.co.in/upload/naac/AQAR_13-14.pdf

4. Whether Academic Calendar prepared during the year? YES

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

Weblink:

5. Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1 st	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 IQAC	Date & duration	Number of participants/beneficiaries
NIL	NIL	NIL

Note: 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/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
H.&H.B. Kotak Institute of Science		State Government	2017-18	3,08,31,000
		UGC	2017-18	10,15,000

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: 02

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? No

If yes, mention the amount: N.A. Year: N.A.

12. Significant contributions made by IQAC during the current year (maximum five bullets)

* Academic & Administrative Audit

* Assessment of Academic Performance Indicators under Career Advancement Scheme

- 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: 2013-14

Date of Submission: 26/09/2014

- 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						
<p>The College is affiliated to Saurashtra University and follows the curriculum and syllabi prescribed by the university. Saurashtra 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The Head of the department and the Principal do a periodical review monitoring of delivery of curriculum and also the student’s attendance.</p> <p>The internal examinations are organized systematically to assess the attainments of course outcome.</p> <p>The IQAC monitors the feedback of students regarding curriculum delivery which helps in incorporating necessary measures for effective implementation.</p>						
1.1.2 Certificate/ Diploma Courses introduced during the Academic year						
Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	focus on employability/ entrepreneurship		Skill development	
NIL	NIL	NIL	NIL		NIL	
1.2 Academic Flexibility						
1.2.1 New programmes/courses introduced during the Academic year						
Programme with Code		Date of Introduction		Course with Code		Date of Introduction
NIL		NIL		NIL		NIL
1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the Academic year.						
Name of Programmes		UG	PG	Date of implementation of		UG PG

adopting CBCS				CBCS / Elective Course 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 (mention the year) 2009-10						
1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year						
	Certificate		Diploma Courses			
No of Students	NIL		NIL			
1.3 Curriculum Enrichment						
1.3.1 Value-added courses imparting transferable and life skills offered during the year						
Value added courses		Date of introduction		Number of students enrolled		
NIL		NIL		NIL		
1.3.2 Field Projects / Internships under taken during the year						
Project/Programme Title			No. of students enrolled for Field Projects / Internships			
B.Sc. Chemistry			120			
1.4 Feedback System						
1.4.1 Whether structured feedback received from all the stakeholders.						
1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents		
Yes/ No	Yes/ No	Yes/ No	Yes/ No	Yes/ No		
1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)						

CRITERION II -TEACHING-LEARNING AND EVALUATION					
2.1 Student Enrolment and Profile					
2.1. 1 Demand Ratio during the year					
Name of the Programme	Number of seats available		Number of applications received		Students Enrolled
B.Sc.	345		4080		345
B.C.A.	60		17		17
2.2 Catering to Student Diversity					
2.2.1. Student - Full time teacher ratio (current year data)					
Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses

2013-14	933	NIL	29	NIL	29
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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 teachers on roll	Number of teachers using ICT (<i>LMS, e-Resources</i>)	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
27	27	Projector, Computer, CD/DVD	4	0	BISAG TV Programs

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 more to 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 altogether educational 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 or psychosocial 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
933	27	1:32

2.4 Teacher Profile and Quality

2.4.1 Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
45	27	18	3	14

2.4.2 Honours and recognitions received by teachers

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

<i>Year of award</i>	<i>Name of full time teachers receiving awards from state level, national level, international level</i>	<i>Designation</i>	<i>Name of the award, fellowship, received from Government or recognized bodies</i>
NIL	NIL	NIL	NIL

2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester-6 / year	Last date of the last semester-end/ year- end examination	Date of declaration of results of semester-end/ year- end examination
B.Sc. B.C.A.		Semester-6	April-2013 April-2013	13th May 2013 15th May 2013

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

- 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 fair 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 (250 words)

- 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 2011. 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.
- The H & HB Kotak Institute of Science as an affiliated college to the Saurashtra University bound to follow rules and regulation regarding internal evaluation. Since the introduction of CBCS the college conducts internal test according to the question paper pattern adopted by the university.
- The university conducts the final exam that have 70 percent weightage. 30 percent weightage is for continuous internal evaluation entrusted to the college. 30percent of the marks given from written internal exam, percent reserve for obedience, discipline , attendance and remaining percent for assignment, classroom seminar, presentation and other creative activities. In CBCS the affiliating university has given freedom to colleges for the final evaluation of subjects of Elective Generic at college level.
- Under the semester system for internal evaluation college conducts one regular internal written test and an additional test for students who represented college in the events of Sports, NSS, NCC and cultural If they could not appear in the regular test. Before submission of final internal evaluation to the university it is displayed both on students' notice board and college website for any query.

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 Code	Programme name	Number of students appeared in the final year	Number of students passed in final	Pass Percentage
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		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 funding Agency	Total grant sanctioned	Amount received during the Academic year
Major projects	NIL	NIL	NIL	NIL
Minor Projects	NIL	NIL	NIL	NIL
Interdisciplinary Projects	NIL	NIL	NIL	NIL
Industry sponsored Projects	NIL	NIL	NIL	NIL
Projects sponsored by the University/ College	NIL	NIL	NIL	NIL
Students Research Projects <i>(other than compulsory by the College)</i>	NIL	NIL	NIL	NIL
International Projects	NIL	NIL	NIL	NIL
Any other(Specify)	NIL	NIL	NIL	NIL
Total	NIL	NIL	NIL	NIL
3.2 Innovation Ecosystem				
3.2.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year				
Title of Workshop/Seminar	Name of the Dept.		Date(s)	
NIL	NIL		NIL	
3.2.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year				
Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
NIL	NIL	NIL	NIL	NIL
3.2.3 No. of Incubation centre created, start-ups incubated on campus during the year				
Incubation Centre	Name		Sponsored by	
NIL	NIL		NIL	
Name of the Start-up	Nature of Start-up		Date of commencement	

NIL	NIL	NIL
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3.3.1 Incentive to the teachers who receive recognition/awards						
State		National			International	
--NIL---		--NIL---			--NIL---	
3.3.2 Ph. Ds awarded during the year (<i>applicable for PG College, Research Center</i>)						
Name of the Department		No. of Ph. Ds Awarded				
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3.3.3 Research Publications in the Journals notified on UGC website during the year						
	Department	No. of Publication		Average Impact Factor, if any		
National /International	PHYSICS	1				
	CHEMISTRY	1				
	MATHS	2				
	STATISTICS	1				
	BOTANY	0				
	ZOOLOGY	0				
	ENGLISH	0				
3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year						
Department		No. of publication				
PHYSICS		0				
CHEMISTRY		0				
MATHEMATICS		0				
BOTANY		0				
ZOOLOGY		0				
STATISTICS		0				
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 Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
"Effect of Anisotropy on Mangetic ordering in the spinel system CoZn(z)Ge(z)Cr(x-z)Fe(2-x-z)O(4)"	K. H. Jani	Solid State Phenomena	2013		Physics	
Gelfand Theory for Vector-valued Beurling Algenras	M K Kansagara	Mathematics Today	2013		Physics	

Microwave-assisted rapid synthesis of novel 1,5-benzodiazepine derivatives as potent antimicrobial agent	N U Pandya	Journal of Heterocyclic Chemistry	2013		Chemistry	
Prime cordial labeling of the graphs related to cycle with one chord, twin chords and triangle Page No.: 79-87 Year of publication: 2013	G V Ghodasara	International Journal of Pure and Applied Mathematics, Academic Publications, Volume 89 No. 1	2013		Mathematics	
“CONSTRUCTION OF TRIANGULAR DESIGNS WITH $k = 1$ and $\lambda_1 = 1, \lambda_2 = 0$ ” Page 01-08	N R Desai	Indian Journal of Statistics and Application	Vol. 2, No. 1 & 2, 2013		STATISTICS	

3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
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3.3.7 Faculty participation in Seminars/Conferences and Symposia during the year :

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops	--	--	--	--
Presented papers	--	1	--	---
Resource 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	Organising unit/ agency/	Number of teachers co-	Number of students
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Activities	collaborating agency	ordinated such activities	participated in such activities
Run for Unity	NSS Unit & Collector of Rajkot	45	200
Competitive Exam Guidance	NSS Unit	3	100

3.4.2 Awards and recognition received for extension activities from Government and other recognized bodies during 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 scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers coordinated such activities	Number of students participated in such activities
Swachh Bharat	NSS Unit	College Cleaning & Classroom Decoration	15	500
Gender Issue	NSS Unit	Self Defence Program for Girls	2	40
Awareness	NSS Unit	Matdan Jagruti Rally	10	200
Awareness	NSS Unit	Celebration of National Voting Day	10	500

3.5 Collaborations				
3.5.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year				
Nature of Activity		Participant	Source of financial support	Duration
NIL		NIL	NIL	NIL
3.5.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year				
Nature of linkage	Title of the linkage	Name of the partnering institution/ industry	Duration (From-To)	Participant

		/research lab with contact details		
Industrial training	Training	----as above--	02-02-2018	17 students& 01 faculty
Industrial training	Training	Gajanand fertilizers & chemicals	15-02-2014	03 students
Industrial training	Training	Amul enterprise	11-02-2014	03 student
Industrial training	Training	Tatasthu pvt.Ltd	12-02-2014	05 student
3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year				
Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs	
NIL	NIL	NIL	NIL	

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES		
4.1 Physical Facilities		
4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year		
Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development	
NIL	NIL	
4.1.2 Details of augmentation in infrastructure facilities during the year		
Facilities	Existing	Newly added
Campus area	122632 Sq.Mt.	NIL
Class rooms	11	NIL
Laboratories	14	NIL
Seminar Halls	NIL	NIL
Classrooms with LCD facilities	4	NIL
Classrooms with Wi-Fi/ LAN	2	NIL
Seminar halls with ICT facilities	NIL	NIL
Video Centre	NIL	NIL
No. of important equipments purchased (≥ 1-0 lakh) during the current year.		
Value of the equipment purchased during the year (Rs. in Lakhs)		
Others		

4.2 Library as a Learning Resource
4.2.1 Library is automated { Integrated Library Management System -ILMS }

Name of the ILMS software	Nature of automation (fully or partially)		Version		Year of automation	
SOUL	NIL		2.0		Note done	
4.2.2 Library Services:						
	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	3888	--	0	0	3888	---
Reference Books	18752	---	89	9167	18841	9167
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	0	0	0	0	0	0
Library automation	0	0	0	0	0	0
Weeding (Hard & Soft)	0	0	0	0	0	0
Others (specify)	0	0	0	0	0	0
Remarks: Here number of books purchased after 2013-14 and their values are shown in the table.						

4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer 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	

4.3.2 Bandwidth available of internet connection in the Institution (Leased line)

NIL MBPS /GBPS

4.3.3 Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
NIL	NIL

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 the teacher	Name of the module	Platform on which module is developed	Date of launching e - content
NIL	NIL	NIL	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 year

Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical 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.

CRITERION V - STUDENT SUPPORT AND PROGRESSION

5.1 Student Support

5.1.1 Scholarships and Financial Support

	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution	NIL	NIL	NIL
Financial support from other sources			
a) National			
b) International			

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
SUCEAT	21/12/2013	65	Saurashtra University
Seminar on preparation Competitive Exam	24/01/2014	100	CEO, Sardar Patel Cultural Foundation, Rajkot
Seminar on How to crack Competitive Exam	13/02/2014	120	CEO, Sardar Patel Cultural Foundation, Rajkot
UDISHA Library	---	200	---

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2013-14	SUCEAT Seminar and workshop on Competitive Exam	220	120	---	---

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year					
Total grievances received		No. of grievances redressed		Average number of days for grievance redressal	
NIL		NIL		NIL	
5.2 Student Progression					
5.2.1 Details of campus placement during the year					
On campus			Off Campus		
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Name of Organizations Visited	Number of Students Participated	Number of Students Placed
Reliance Power Ltd	45	9	Reliance Industries	95	9
Ensure Pharma	45	5			
5.2.2 Student progression to higher education in percentage during the year					
Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2013-14	225	B.Sc.	H&HB Kotak Institute of Science	Saurashtra University	M.Sc./B.Ed
5.2.3Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)					
Items		No. of Students selected/ qualifying		Registration number/roll number for the exam	
NET		NIL		NIL	
SET		NIL		NIL	
SLET		NIL		NIL	
GATE		NIL		NIL	
GMAT		NIL		NIL	
CAT		NIL		NIL	
GRE		NIL		NIL	
TOFEL		NIL		NIL	
Civil Services		NIL		NIL	
State Government Services		NIL		NIL	
Any Other		NIL		NIL	
5.2.4 Sports and cultural activities / competitions organised at the institution level during the year					
Activity	Level		Participants		
Saptadhara 20 Activities	College		450		
5.3 Student Participation and Activities					
5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at					

national/international level (award for a team event should be counted as one)						
Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID number	Name of the student
NIL	NIL	NIL	NIL	NIL	NIL	NIL
5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)						
NIL						
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)
<p>Response:</p> <p>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.</p> <p>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.</p> <p>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:</p>

<ul style="list-style-type: none"> • Admission Committee • Time-table Committee • RUSA Committee • DELL Committee • AAA Committee • IT Committee • Soil Testing Committee • E-Waste Management Committee • Library Committee • UGC Committee • RTI Committee • Saptadhara Committee 	<ul style="list-style-type: none"> • IQAC • Grievances Redressal Cell • Women Development Cell • Anti Ragging Cell • NSS • NCC • Sports • BCA 	
6.1.2 Does the institution have a Management Information System (MIS)?		
Yes/No/Partial:		
No		

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):
<p>❖ 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.</p>
<p>❖ 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.</p>
<p>❖ 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</p>

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 fair 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

<p>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.</p>				
<p>❖ 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.</p>				
<p>❖ Industry Interaction / Collaboration</p>				
<p>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.</p>				

6.3 Faculty Empowerment Strategies

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year.

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support

2013-14	Dr. N. K. Ajudia	International conference on special functions and their applications		4868	
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 professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	Dates (from-to)	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2013-14	Nil	Nil	Nil	Nil	Nil
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 programme		Number of teachers who attended		Date and Duration (from – to)	
STC on P.C.Hardware and Future Technology		1		24/03/2014 to 30/03/2014	
STC on ENGLISH LANGUAGE TRANSLATION		1		24 to30-March- 2014	
STC on Professional Development Programme for Teachers on "Gandhi Vichar"		1		Dt. 20/01/2014 to 26/01/2014	
STC on Classroom teaching technology		1		7-10- 2013 to 13-10-2013 (7 days)	
STC on Creative workshop on search & Research		1		21-10- 2013 to 27-10-2013 (7 days)	
STC on Professional Development Programme for Teachers on 'Creative Workshop on search and research		1		21/10/2013 to 27/10/2013	
Refresher Course In Physics		1		8 to 28 -Dec-2014	
Seminar on Advances in Spectroscopy and Stereochemistry		1		13/03/2014 to14/03/2014	
Seminar on Swami vivekanand & contemporary indian thinkers		1		17-Mar-2013	
Seminar on UGC sponsored national seminar in Advances in Spectroscopy		1		13 to 14-March-2014	
Seminar on Democracy in Our Time : Past, Present and Future		1		14-09-2013	
Conference: 101st Indian Science Congress Poster Presentation		1		3 to 7 Feb-2014	
National one day workshop on “R & D and its Impact in Current Context” jointly organised by IIIC, under IQAC and Department of Chemistry, Saurashtra university, Rajkot		2		14-09- 2013	

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):				
Teaching		Non-teaching		
Permanent	Fulltime	Permanent	Fulltime/temporary	
02	Nil	Nil	Nil	
6.3.5 Welfare schemes for				
Teaching			Co-operative Society	
Non teaching			Co-operative Society	
Students			NIL	
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 agencies/ individuals		Funds/ Grants received in Rs.	Purpose	
Saurashtra University		18500	NSS	
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	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic				
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)				
NIL				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
6.5.5				
a. Submission of Data for AISHE portal : (Yes /No) YES				
b. Participation in NIRF : (Yes /No) N.A.				
c. ISO Certification : (Yes /No) NO				
d. NBA or any other quality audit : (Yes /No) N.A.				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from----- to-----)	Number of participants
2013-14	Use of ICT, Projector & PC	July-2013		All the teachers

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)		Participants		
				Female	Male	
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						
Provision for lift						
Ramp/ Rails						
Braille Software/facilities						
Rest Rooms						
Scribes for examination						
Special skill development for differently abled students						
Any other similar facility						
7.1.4 Inclusion and Situatedness						
Enlist most important initiatives taken to address locational advantages and disadvantages during the year						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
7.1.5 Human Values and Professional Ethics						
Code of conduct (handbooks) for various stakeholders						
Title		Date of Publication		Follow up (maximum 100 words each)		
7.1.6 Activities conducted for promotion of universal Values and Ethics						
Activity		Duration (from-----to-----)			Number of participants	
7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)						

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 10000 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:

	Chemistry	Mathematics	Physics	Statistics	Botany	Zoology	English
Ph. D.	7	2	2	1	2	1	1
NET	--	2	--	--	--	--	
GSET	1	--	--	--	--	--	
TOTAL	10	5	6	1	2	1	2

– 27 (16- Ph.D.,2-NET, 1-GSET, 1-GATE,2-M.ed.,3-LLB)

- 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 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



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
