

PRAMUKH SWAMI SCIENCE & H.D.PATEL ARTS COLLEGE

(Affiliated to Hemchandracharya North Gujarat University, Patan)

NAAC re-accredited 'A' grade with CGPA 3.20
Awarded 'AAA' Rank-1 by Government of Gujarat
'College with Potential for Excellence' (2010-2019) by UGC

AN ANNUAL REPORT OF INTERNAL QUALITY ASSURANCE CELL (2014-15)



To

**UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG, NEW DELHI-110002**

**PRAMUKH SWAMI SCIENCE & H. D. PATEL ARTS COLLEGE
S. V. CAMPUS
KADI – 382 715
GUJARAT**

www.psshda.org

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Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

Part – A

I. Details of the Institution

1.1 Name of the Institution

Pramukh Swami Science and H.D.Patel Arts College

1.2 Address Line 1

Sarva Vidyalaya Campus,

Address Line 2

Behind Railway Station,

City/Town

Kadi

State

Gujarat

Pin Code

382715

Institution e-mail address

mail@psshda.org

Contact Nos.

02764-262634

Name of the Head of the Institution:

Dr Ajay S. Gor

Tel. No. with STD Code:

02764-262634

Mobile:

9426766703

Name of the IQAC Co-ordinator:

Dr Anand H. Vyas

Mobile:

9426767214

IQAC e-mail address:

mail@psshda.org

1.3 NAAC Track ID (For ex. HCMOGN 18879)

GJCOGN13005

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.

This EC no. is available in the right corner- bottom
of your institution's Accreditation Certificate)

EC/66/RAR/043 dated 23-05-2014

1.5 Website address:

www.psshda.org

Web-link of the AQAR:

<http://www.psshda.org/iqac.php>

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B+	75.1	2007	2007-12
2	2 nd Cycle	A	3.20	2014	2014-19
3	3 rd Cycle				
4	4 th Cycle				

1.7 Date of Establishment of IQAC :

DD/MM/YYYY

22/07/2007

1.8 AQAR for the year (for example 2010-11)

2014-15

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011))

- i. AQAR 2013-14 _____ submitted to NAAC on (12/05/2014)
 ii. AQAR 2014-15 _____ submitted to NAAC on (23/12/2015)

1.10 Institutional Status

University State ☒ Central ☐ Deemed ☐ Private ☐

Affiliated College Yes ☒ No ☐

Constituent College Yes ☐ No ☒

Autonomous college of UGC Yes ☐ No ☒

Regulatory Agency approved Institution Yes ☒ No ☐

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education ☒ Men ☐ Women ☐

Urban ☐ Rural ☒ Tribal ☐

Financial Status Grant-in-aid ☒ UGC 2(f) ☒ UGC 12B ☒

Grant-in-aid + Self Financing ☒ Totally Self-financing ☐

1.11 Type of Faculty/Programme

Arts ☒ Science ☒ Commerce ☐ Law ☐ PEI (Phys Edu) ☐

TEI (Edu) ☐ Engineering ☐ Health Science ☐ Management ☐

Others (Specify)

B.Voc. & Community College

1.12 Name of the Affiliating University (for the Colleges)

Hemchandracharya North Gujarat University,
Patan, Gujarat

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

No

University with Potential for Excellence

UGC-CPE

√

DST Star Scheme

UGC-CE

UGC-Special Assistance Programme

DST-FIST

UGC-Innovative PG programmes

Any other (*Specify*)

AAA⁺ Rank 1
By Govt. of Gujarat

UGC-COP Programmes

√

2. IQAC Composition and Activities

2.1 No. of Teachers

8

2.2 No. of Administrative/Technical staff

1

2.3 No. of students

3

2.4 No. of Management representatives

4

2.5 No. of Alumni

2

2.6 No. of any other stakeholder and
community representatives

2

2.7 No. of Employers/ Industrialists

-

2.8 No. of other External Experts

-

2.9 Total No. of members

19

2.10 No. of IQAC meetings held

1st Quarterly Meeting: 12/11/2014
2nd Quarterly Meeting: 21/1/2015
3rd Quarterly Meeting: 9/5/2015
4th Quarterly Meeting: 1/7/2015

2.11 No. of meetings with various stakeholders:

No.

4

Faculty

8

Non-Teaching Staff Students

1

Alumni

2

Others

4+2

2.12 Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount

3,00,000/-

√

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos.

X

International

National

State

Institution Level

(ii) Themes

2.14 Significant Activities and contributions made by IQAC

Sr. No.	Significant Activities and contributions made by IQAC
1	Developed the infrastructure for B.Voc. in Course1: Textile and Ginning Technology Course 2: Pharmaceutical Chemistry
2	Developed the infrastructure for Community College in Course1: Textile and Ginning Technology Course 2: Agriculture and Soil Sciences
3	Carried out the appropriate Teaching & Non-teaching Staff recruitment procedure for the B.Voc. & C.C. programs as per Uni. rules
4	Accomplished the infrastructure, laboratory instruments and staff recruitment procedure for special Physics at Under graduation level
5	Applied for one more course in Community College Course 1: Ceramic Technology
6	MOUs with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work
7	MOUs with Dantiwada Agriculture University and Krishi Vigyan Kendra, Mehsana for Agriculture and Soil Sciences Course in C.C.
8	MOUs with Cera & Somany Ceramics Limited, an ISO companies for Ceramic Technology Course in C.C.
9	Organized 3 Industry-Academia Meet for internship, project and placement purposes
10	Organized state level workshops in Mathematics in collaboration with Science College, Pilvai
11	Organized GIBON, a state level competition, for all Gujarat Bio-technology students

The major focus of IQAC is to take into consideration how far the institute has succeeded in executing the previous year plan of action and in accordance to chalk up a new plan of action for further academic development of the institute from academic, administrative, research and infrastructure point of view.

These aspects are discussed in presence of the faculty, non-teaching staff, the college management body and the stake-holders to take solid step of growth for the next academic year.

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year.

Plan of Action	Achievements
Develop the infrastructure for B.Voc. and C.C.	- Two extra classroom construction work is sanctioned
Recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C.	- As per University norms, the recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C. is executed.
Accomplished the Physics Laboratory work	- Two Physics Laboratories are developed with around 11 lakh rupees instruments purchased - Teaching & Non-teaching faculty recruitment procedure is executed.
Application for Special Physics in B.Sc.	- Hemchandracharya North Gujarat University sanctioned the course on self-financed bases.
Application for two more course in Community College Course 1: Ceramic Technology Course 2: Home Appliances & Maintenance	- UGC sanctioned 1 course out of the 2 and dispatched the institute 1 Crore rupee grant in the initial state. Course1: Ceramic Technology
MOUs with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work	- With three NAAC 'A' graded colleges, Science, Arts & Commerce College, Pilvai, HNG Uni., V.P. Science College, Vallabh Vidyanagar, S.P. Uni., and M.G. Science College, Guj. Uni. MOUs have been signed for Academic, Research and Collaborative Work for the Faculty as well as Students' development
MOUs with Universities & Industries for academic, research and collaborative work	- MOUs with Agricultural University, Dantiwada & Krishi Vigyan Kendra, Mehsana - MOUs with Cera & Somany Ceramic ISO Co.
To organize Industry-Academia Meet for internship, project and placement purposes	- Three Industry-Academia Meets were organized for the courses of: Course1: Textile and Ginning Technology Course2: Agriculture and Soil Sciences Course 3: Pharmaceutical Chemistry
As a part of FDP, to organize UGC sponsored workshop/seminar	- 2 two days UGC sponsored State level workshops were organized by the Dept. of Mathematics in collaboration with Science, Arts & Commerce College, Pilvai on Scientific Computing Programs of PYTHON & LATEX.
- To organize GIBON, a state level competition, for all Gujarat Bio-technology students	- To organize GIBON, a state level competition, for all Gujarat Bio-technology students on 1 st Feb. 2015

** Attach the Academic Calendar of the year as Annexure.*

Annexure: I

2.15 Whether the AQAR was placed in statutory body

Yes

☒

No

☐

Management

☒

Syndicate

☐

Any other body

☐

Provide the details of the action taken

Sr. No.	Action Taken by IQAC
1	<ul style="list-style-type: none"> - Established new advanced Physics Laboratory - Purchased Physics laboratory instruments for Sem. V & VI - Recruited adhoc staff/visiting staff till the Govt. of Gujarat sanctions the vacancies.
2	<ul style="list-style-type: none"> - Got sanctioned 2 new classrooms construction of B.Voc. & C.C. - Established new advanced Laboratories for the same. - Purchased laboratory instruments for Sem. V & VI for the same. - Recruited adhoc staff/visiting staff till the Govt. of Gujarat sanctions the vacancies.
3	<ul style="list-style-type: none"> - Organized two UGC sponsored State Level Workshops in Mathematics in collaboration with Science, Arts & Commerce College, Pilvai in the academic year of 2014-15
4	<ul style="list-style-type: none"> - Organized GIBON for all Gujarat Bio-technology students on 1st Feb.2015
5	<ul style="list-style-type: none"> - Organized students' activities e.g. NCC/NSS/Sports
6	<ul style="list-style-type: none"> - Organized Industry-Academia Meet for internship, project and placement purposes
7	<ul style="list-style-type: none"> - As a part of FDP, 2 two days UGC sponsored State level workshops were organized by the Dept. of Mathematics in collaboration with Science, Arts & Commerce College, Pilvai on Scientific Computing Programs of PYTHON & LATEX.
8	<ul style="list-style-type: none"> - Organized GIBON, a state level competition, for all Gujarat Bio-technology students on 1st February, 2015

Part – B

Criterion – I

I. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	6	-	-	-
PG	4	-	-	-
UG	12	-	-	-
PG Diploma	-	-	-	-
Advanced Diploma	2	1	-	-
Diploma	-	-	-	-
Certificate	-	-	-	9*
Others	-	-	-	-
Total	24	1	-	9
Interdisciplinary	-	-	-	-
Innovative	4	1	-	-

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	25
Trimester	-
Annual	-

1.3 Feedback from stakeholders* Alumni ☒ Parents ☐ Employers ☐ Students ☒
(On all aspects)

Mode of feedback : Online ☐ Manual ☒ Co-operating schools (for PEI) ☐

**Please provide an analysis of the feedback in the Annexure*

Annexure: II

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

We have following faculty members as members of the University Board of Studies (BOS) in their respective subjects.

(1) Principal Dr. Ajay Gor (Chairman of the BOS)	Mathematics
(2) Mr. C.V. Patel	Chemistry
(3) Mr. A.A. Patel	Mathematics
(4) Dr. S.V. Chaudhari	History
(5) Dr N. J. Parikh	History
(6) Dr. Anand Vyas	English
(7) Dr Minal Trivedi	Biotechnology
(8) Mr. C.A. Patel	Physics

1.5 Any new Department/Centre introduced during the year. If yes, give details.

- B.Sc. Physics
- B.Voc in Textile and Ginning Technology.
- B.Voc in Pharmaceutical Chemistry
- C.C. in Textile and Ginning Technology.
- C.C. in Agriculture and Soil Sciences

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	On contract
31	06	19	-	6

2.2 No. of permanent faculty with Ph.D.

17

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
06	07	19	-	-	-	-	-	25	07

2.4 No. of Guest and Visiting faculty and Temporary faculty

6

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended		2	19
Presented papers	5	18	9
Resource Persons	1	1	23

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- We prepare strategy for effective over all teaching –learning activities
- Use of teaching aids like charts, models, Audio and video CDs according to demand of subject and establishment of virtual class room.
- Exam reforms and inclusion of MCQs
- Special programmes for slow learners (Remedial classes) and advanced learners (COPs and Industrial training)
- Scholarship and free ships by Trust for scholars and economically weak students
- Assignments and weekly tests
- Introduction of new P.G., Ph.D. and Career Oriented Programmes ***** project

2.7 Total No. of actual teaching days

during this academic year

198

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

MCQs

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

08

2.10 Average percentage of attendance of students

85%

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.Sc.	198	97	52	2	-	26
B.A.	260	27	108	14	-	72
M.Sc.	29	5	4	-	-	11
M.A.	117	70	38	1	-	06

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

The college has instituted an “Internal Quality Assurance Cell” (IQAC) as per the guidelines of NAAC – UGC. The cell consists of members from the Trust, college Alumni, principal of the college, Co-ordinator of the steering committee (NAAC and IQAC), heads of the departments and other reputed people of the town. The cell aims at quality enhancement based on the suggestions of the previous NAAC peer team report. Every year the cell outlines the goals and sets targets regarding the overall quality of the institution, which includes needful things to be done and feedback from all stakeholders. The meeting of IQAC is regularly being held at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute’s efforts of quality improvement and the achievement of superior outcomes on all aspect of holistic education is being sent to NAAC – UGC as ‘Annual Quality Assessment Report (AQAR)’ by the IQAC.

As a result of our continual efforts to enhance quality and provide education of higher standard, the college has been recognized by UGC as “College with Potential for Excellence (CPE)”.

1. The Head of the Departments of each of the enrichment programmes has been entrusted the responsibility of running the programmes efficiently and evaluating them frequently to make them beneficial and result-oriented.

2. Internal Quality Assurance Cell (IQAC) aims at quality enhancement in teaching and learning process based on the feedback from faculty members, students and alumni. The meetings of IQAC are held regularly at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute's efforts of quality improvement and the achievement of superior outcome on all aspects of holistic education are being sent to NAAC – UGC as 'Annual Quality Assurance Report (AQAR)' by the IQAC. Based on the suggestions made at the IQAC meetings the following steps are taken:

Feedback of all the students is taken and due analysis is done regarding the methods of teaching and necessary suggestions are communicated to concerned teachers. The evaluation of the teaching-learning process is done on a ten-points scale considering parameters such as presentation skill, content development, evaluation pattern, availability of teacher and general behavior of the teacher etc.

Motivating Steps by IQAC:

1. The college has prepared virtual classrooms and it organizes lectures of experts and encourages college teachers to use various teaching aids such as multimedia projector, interactive board, visualizer (especially for experiments) etc.
2. The college has collaborated with a Government of Gujarat Initiative - '**SANDHAN**' where **satellite based expert lectures are telecast**. These lectures are shown to students.
3. The institute has organized several training programmes to update the teacher.

2.13 Initiatives undertaken towards faculty development *

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	-
UGC – Faculty Improvement Programme	40
HRD programmes	3
Orientation programmes	5
Faculty exchange programme	5
Staff training conducted by the university	-
Staff training conducted by other institutions	10
Summer / Winter schools, Workshops, etc.	-
Others	

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	01	03	-	07
Technical Staff	07	01	01	01

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- State-of-the art research laboratory
- Well equipped plant Tissue Culture Lab and a Green House
- Research supervisors/guides in various subjects
- Computerized library and INFLIBNET facility
- Computer lab enabled with internet facility
- The college and the hostels are Wi-Fi enabled.
- We have purchased a software, Quantemol-N from UK for advance research in electron –atom/molecules scattering theory.
- The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
- The college has spent about Rs.45,00,000/- towards creating research facilities.
- The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
- KSV university has provided additional financial support to several projects (e.g. last year Rs.4,00,000/- has been allocated to 7 faculty members.
- Open source software training is being regularly provided to students in collaboration with IIT-Mumbai. These software include LATEX, LINUX, PHP- MYSQL, SCILAB, PYTHON, GEOGEBRA

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	2	-	-
Outlay in Rs. Lakhs	6,00,000/-	12,22,000/-	-	-

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	3	15	-	2
Outlay in Rs. Lakhs	1,07,000/-	12,68,000/-	-	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	31	19	5
Non-Peer Review Journals	4	8	4
e-Journals			
Conference proceedings	1		

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

Annexure: III

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

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	3	UGC	12,22,000/-	12,22,000/-
Minor Projects	2	Kadi Sarva Vishwa Vidyalaya GJCOST UGC	3,79,000/- 22,000/- 8,89,000/-	3,79,000/- 22,000/-
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students research projects (other than compulsory by the University)	2	Kadi Sarva Vishwa Vidyalaya UGC	60,000/- 1,64,000/-	60,000/- 1,64,000/-
Any other(Specify)	-	-	-	-
Total			14,92,000/-	?

3.7 No. of books published i) With ISBN No.

25

Chapters in Edited Books

5

ii) Without ISBN No.

4

3.8 No. of University Departments receiving funds from : - NA -

UGC-SAP

CAS

DST-FIST

DPE

DBT Scheme/funds

3.9 For colleges

Autonomy

CPE ☒

DBT Star Scheme

INSPIRE

CE

Any Other (specify)

3.10 Revenue generated through consultancy

Kamlesh + PCM Research Lab

3.11 No. of conferences

organized by the Institution

Level	International	National	State	University	College
Number	-	1	2	-	-
Sponsoring agencies	-	UGC	UGC	-	-

3.12 No. of faculty served as experts, chairpersons or resource persons

15

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year Industrial linkages : 30

3.15 Total budget for research for current year in lakhs :

From Funding agency From Management of University/College
Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	-
	Granted	-
International	Applied	-
	Granted	-
Commercialised	Applied	-
	Granted	-

3.17 No. of research awards/ recognitions received by faculty and research fellows
Of the institute in the year

Total	International	National	State	University	Dist	College
09	05	04				

3.18 No. of faculty from the Institution who are Ph. D. Guides
and students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events:

University level State level
National level International level

3.22 No. of students participated in NCC events:

University level	<input type="text" value="25"/>	State level	<input type="text" value="5"/>
National level	<input type="text" value="2"/>	International level	<input type="text"/>

3.23 No. of Awards won in NSS:

University level	<input type="text"/>	State level	<input type="text"/>
National level	<input type="text"/>	International level	<input type="text"/>

3.24 No. of Awards won in NCC:

University level	<input type="text"/>	State level	<input type="text"/>
National level	<input type="text"/>	International level	<input type="text"/>

3.25 No. of Extension activities organized

University forum	<input type="text"/>	College forum	<input type="text" value="2"/>	
NCC	<input type="text" value="3"/>	NSS	<input type="text" value="5"/>	Any other <input type="text"/>

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- Voter Awareness Club by NSS
- Security Training Activity on Sundays by NCC cadets as members of Campus Security Committee
- 253 bottles of Blood Donation by N.S.S. & N.C.C. cadets (3 cadets donated blood in medical emergency)
- Tree Plantation by N.S.S.
- Raksha Bandhan & Janmastami Celebration by N.S.S.
- NSS Day Celebration

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	48 Acres	-	Trust: College	48 Acres
Class rooms	19	5	Trust	24
Laboratories	8	1	Trust: College	13,48,530/-
Seminar Halls	1	1	Trust: College	22,40,839/-
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		1 GC 1 FTR	college	7,70,000/- 9,00,000/-
Value of the equipment purchased during the year (Rs. in Lakhs)		31 Computer		6,83,675/-
Others				

4.2 Computerization of administration and library

Library:

- Automation of the Library (through SOUL Web OPAC)
- N-List of INFLIBNET to access to E-journals(3719+ with back files from 5-10 years) and E- Books (74138 books)
- Access of Internet Facility through six computer terminals.(Internet bandwidth / Speed 2 mbps)
- Wi-Fi facility

Administration Office:

- Computerized with Internet Facility through six computer terminals & 4 printer & 2scanners.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	23,000	3635726.50	527	1,95,232	24,345	38,30,958.50
Reference Books			818			
e-Books	74,138	0	22862	0	97000	0
Journals	74	0	9	-	83	46,019.00
e-Journals	3,717+	0	2283	0	6000	0
Digital Database	0	0	0	0		0
CD & Video	484	0	125	0	609	0
Others (specify)	2660 books	0	0	0		0

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	127	1	5 mbps	4	2	6	15	
Added	5		5 mbps	4		1		
Total	132	1	10mbps	8	2	7	15	

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

- 132 computers
- 12 laptops
- 10 mbps BSNL broadband speed
- wi-fi facility in the whole campus
- computer laboratory with 60 computers
- DELL (Digital Education Learning Laboratory) with 25 computers & Globeranna English Language Software
- SCOPE (Society for Creation of Opportunity through Proficiency in English) an online Exam for Teaching Staff
- Computer Training Program for Office Staff
- Computerized Library
- Computerized Individual Departments

4.6 Amount spent on maintenance in lakhs :

i) ICT	3,57,258.00
ii) Campus Infrastructure and facilities	3,75,692.00
iii) Equipments	32,671.00
iv) Others	9,88,896.00
Total :	17,54,517.00

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- **IQAC takes care of the Upgradation of Brochure details to intimate the students as well as parents about the availability of Student Support Services in the form of Mean & Merit Scholarships provided by the Government as well as the Trust.**
- **IQAC takes care of the maximum utilization of the advance facilities provided by the college in the form of infrastructure as well as academic programs for the welfare of the students.**
- **Students from SC/ST, OBC and economically weaker sections**
- **Physically challenged students**
- **For the participants of different national/international competition**
The college students participate in national/international activities at three categories:
 1. Academic conferences/workshops
 2. Sports
 3. Cultural activities
- **Medical help/Medical center /Medical Insurance for the students.**
- **Development of skills**
The college runs career Oriented Programmes to develop various technical skills.
 1. Career oriented Programme on Industrial Chemistry
 2. Career oriented Programme on GMP-GLP practices in Biopharmaceuticals
 3. Certificate course in Industrial Biotechnology
 4. Certificate course in Hands-on Practices in Tissue Culture
 5. Certificate course in Applied Plant Tissue Culture Techniques
 6. Career oriented Programme on communication skills
 7. Career Oriented Training for competitive exams
- **Support for ‘Slow learners’**
The college organizes remedial classes for slow learners. The faculties gave special attention to such students.
- **Exposures of students to other institution of higher learning/corporate/business house etc.**
The college sends final year students for Industrial training and industrial visits to various industries.
We organize educational tours to academic and research institutes such as Physical Research Laboratory, Indian Plasma research, ISRO, Science City etc. along with several heritage places in order to give them exposure to higher learning.
- **Publication of student magazines**
The college runs ‘SahityaVartul’ to encourage students to write prose/poetries and articles which are displayed on a specified notice board.
A magazine “प्रज्ञा”(Prajna) is being published periodically. Students are awarded for best contribution.

5.2 Efforts made by the institution for tracking the progression

- Continuous evaluation of the students
- Participation of the students in curricular, co-curricular activities & extra-curricular activities
- Seminars
- Project based learning
- Industrial Visits
- Industrial Training
- Field Trips
- Academic Tours
- Organization of workshops

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others (M.Phil.)
1572	244	20	8

(b) No. of students outside the state

04

(c) No. of international students

X

Men

No	%
866	47.34

Women

No	%
963	52.65

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1135	137	31	781	7	2091	1013	147	69	583	-	1812

Demand ratio ----

Dropout 5 %

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- **Cell for Preparation of civil services examination**

Institute has organized coaching classes for preparation of civil services examinations like GPSC, UPSC, Railway Recruitment Boards, Banking Services and other state level examinations. They were given training for better interview preparation. We have found satisfactory improvement in their performance and confidence.

An IAS training centre is run by our Trust at its Gandhinagar campus.

Gandhinagar, being the state capital, a pool of IAS officers is available for training.

Their lectures are live streamlined to our college at Kadi with a two-way communication.

No. of students beneficiaries

25

5.5 No. of students qualified in these examinations

NET	<input type="text"/>	SET/SLET	<input type="text"/>	GATE	<input type="text"/>	CAT	<input type="text"/>
IAS/IPS etc	<input type="text"/>	State PSC	--	UPSC	<input type="text"/>	Others	20

5.6 Details of student counselling and career guidance

Students are being counseled on various grounds by faculty members and we try to sort out various problems of students.

Following cells are actively engaged in the Counselling work:

Career Counselling Cell: It guides the students regarding career options and other academic matters

Grievance redressal cell: Any issue academic, social or psychological is being dealt with by senior faculty members

Women's Cell: It helps girl students to address their issues and problems concerning their academics as well as social matters.

No. of students benefitted

5.7 Details of campus placement *

Yes the college has an active Career Counselling Cell and the college is a part of the state level placement programme (Universal Development of Integrated employability Skills through Higher education Agencies) **UDISHA** – A Gujarat government initiative to increase employability of students of the state.

Also, the college generally organizes ‘campus interviews’ for the students of B.Sc. as well as M.Sc.

The cell motivates and guides students for competitive exams to enter the government sector. Through such efforts a college student Patel Binal B. was selected as a clerk in the sales tax office Ahmedabad

An awareness programme was organized in the college by the placement cell, a seminar on Airline, Hotels and Travel Industry (FRANKFINN – An institute of Air Hostesses) for the benefit of the students of our college.

Faculties from a premier Institute of Science & Technology for Advanced Studies and Research – (ISTAR) at Vallabh Vidyanagar were invited to guide our students for career opportunities on January 5, 2009.

KUONI an academy of travel visited our college to give guidance regarding the job opportunities in areas of tours and travel.

Meghmani Industries Ltd. (Manufacturers of Dyes, Agro chemicals and intermediates) visited the Department of Chemistry, Patan, to guide and offer job in their companies. Our students attended the programme and were benefitted. Students of B.Sc. (Biotechnology) were exposed to industries through training of two weeks in industries such as,

- (a) Cadial Health care
- (b) ZydusMayne oncology Pvt. Ltd.
- (c) IntasPharma
- (d) IFFCO
- (e) AMUL dairy
- (f) Totun Pharma
- (g) Casil Pharma
- (h) Gujarat Cancer research Centre
- (i) Claris Life Science

Students from science faculty of our college have been selected from different industries.

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
Cera Ceramics Ltd.	23	23	-

5.8 Details of gender sensitization programmes

Yes, the institution has a student grievance redressed cell. In order to meet the grievances, “Suggestion Box” has been kept near the administrative office. The college has a “Grievance Redressed Cell” to redress the grievances of the stakeholders and students. The committee sorts out their problems promptly and amicably. The committee also redresses the grievances of the stakeholder as and when required. Serious issues are discussed in the staff meeting and the rest are sorted out in an informal manner.

GRIEVANCES REDRESSED:

- Services of Canteen facility have been improved.
- The college and hostels are now enabled with CCTV for continual surveillance.
- Transport facility is improved and the Trust has purchased two new buses.

The college has set up “Women Development Cell” which looks after the issues pertaining to sexual harassment apart from taking various measures regarding all round development of women in the college. In last five years, it is worth noting that no serious issue of women harassment has been recorded. The whole of the campus including hostels is under 24× 7 surveillance through cameras. This helps prevent any untoward incidence to take place. The women development cell undertakes the following steps to effect development of women:

- (1) Educating women about their basic rights.
- (2) Counseling girl students regarding several curricular and extra-curricular activities to motivate them for participation. When necessary, the cell counsels the parents to allow their daughter to take part in various activities.
- (3) Counseling the in laws of married (or soon to be married) girls to allow her to continue her study and nurture her career.
- (4) Counseling the girls and their parents regarding several social issues e.g. dowry, harassment by in laws and other matters.
- (5) Guiding the women about career development and career options available to them.
- (6) Looking after any grievances that women may have and bring up to the cell.

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	46	1,17,500.00
Financial support from government	259	10,16,485.00
Financial support from other sources	1	60,000.00
Number of students who received International/ National recognitions		

5.11 Student organised / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: _____NIL_____

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

The vision of this institution is,

“To keep pace with global advances in education, by providing value based knowledge and nurturing professional skills in the areas of science and arts, with special emphasis on societal elevation through rural development.”

Mission

To accomplish the vision, our **Mission** is,

1. To achieve the status of “Centre for Excellence” after being recognized as ‘College with Potential for Excellence’
2. To make students more employable through Career Oriented Programmes and inspire them to create jobs by inculcating entrepreneurial skills
3. To cultivate scientific attitude, research aptitude and soft skills among the students
4. To instill enthusiasm for preservation of languages, art and cultural heritage
5. To create state of the art infrastructure to facilitate teaching, research and sports
6. To promote the teachers for consultancy and patent generation
7. To contribute to societal elevation by empowering women and through value based education.

6.2 Does the Institution has a management Information System

The college has instituted an “Internal Quality Assurance Cell” (IQAC) as per the guidelines of NAAC – UGC. The cell consists of members from the Trust, college Alumni, principal of the college, Co-ordinator of the steering committee (NAAC and IQAC), heads of the departments and other reputed people of the town. The cell aims at quality enhancement based on the suggestions of the previous NAAC peer team report. Every year the cell outlines the goals and sets targets regarding the overall quality of the institution, which includes needful things to be done and feedback from all stakeholders. The meeting of IQAC is regularly being held at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute’s efforts of quality improvement and the achievement of superior outcomes on all aspect of holistic education is being sent to NAAC – UGC as ‘Annual Quality Assessment Report (AQAR)’ by the IQAC.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

The following faculties of the college contribute to the curricula design and development process as University members of Board of Studies of respective subjects:

Sr No.	Faculty	Subject
1	Dr Ajay Gor (The Principal)	Mathematics
2	Mr. S. B. Patel	Physics
3	Mr. C. V. Patel	Chemistry
4	Mr. A.V. patel	Mathematics
5	Mr. S. V. Chaudhari	History
6	Dr N.J. Parikh	History
7	Dr A. H. Vyas	English
8	Dr Minal Trivedy	Biotechnology

- Prior to the BOS meetings of the university, the BOS Members of the college hold discussion with other faculty members regarding the curriculum and take their feedback to the university.
- We prepare questionnaire with respect to curriculum and take written feedback from the students which is, in turn, forwarded to the concerned authorities including faculties and the University.

6.3.2 Teaching and Learning

The college gives great emphasis on innovation and creativity in teaching methodologies. In order to facilitate such innovative practices the college has adopted the use of technology in to teaching methods.

- A) **Project based learning:** The faculty members assign students projects. Students are directly involved in activities such as soil analysis, and seedlings and hardening of plants, tissue cultured in our Plant Tissue Culture Lab. We make them earn while learning by involving in such projects.
- B) **Specialized trainings:** The college students are given opportunity to learn the Open Source Software in collaboration with IIT-Mumbai, and exposure to sophisticated equipments like HPLC, GC in our research lab. Such advanced trainings prepare the students for employable markets.
- C) **Assignments and Seminar:** Students are regularly given assignments, quizzes and they are required to present seminars in their classes. Due weightage to these activities is given in the internal evaluation.
- D) **Interactive board/ Multimedia projectors:** The teachers are encouraged to use interactive boards and multimedia projectors for better presentation. The interactive boards allow the teachers to 'save' the study material, which can be e-mailed to students for future use and studies.
- E) **Visualiser:** The College has purchased a Visualiser, which records all the experimental work done by students that can be reviewed by students /teachers later and can be shown to another group of students.

- G) **Tours and Industry visits:** The College organizes regular academic tours, field work and industry visits to expose and motivate the students to demands of industry and society.

The following structure is adopted for achieving the above mentioned learning outcomes:

- Regular classes as well as additional expert lectures
- Remedial classes for weak learners
- Motivation for rank holders
- ICT enabled training and provision for ICT tools
- Continuous Internal assessment programmes e.g. Weekly Test for T.Y.B.Sc.
- Assignments and project work
- Seminars, Presentations
- Quality improvement program
- Faculty development program
- Theory, projects, assignments & practical for effective learning.

6.3.3 Examination and Evaluation

EVALUATION BLUE PRINT:

We have developed a strong efficient and effective evaluation blue print based on sincerity, secrecy and sanity at every stage such as planning, scheduling, conduction of examination, assessment and moderation of answer books and declaration of results.

Administrative setup-

- College Examination committee- This committee consists of college senior faculties nominated by the principal. The committee is in charge for all matters pertaining to examination which includes preparation of examination, schedule, monitoring of the process, paper setting and assessment of answer books and declaration of results.

Examination pattern

- We follow the examination pattern of the affiliating university in which the university exam and internal assessment carry 70 marks and 30 marks respectively. Internal assessment (30 marks) consists of mid-semester examination (20 marks) and 10 marks for seminar, assignment, attendance, Quiz and fieldwork.
- **Weekly Tests:** We have adopted continuous evaluation pattern as a part of internal assessment in case of T. Y. B. Sc. Students. For 50 % of internal evaluation, we conduct weekly tests every Monday. Total 15 such tests are conducted out of which best 13 are considered. For remaining 50 % of internal evaluation a preliminary examination is conducted.
- **Additional examination** – For any student who fails to appear in some or all papers at the internal examination due to genuine reasons like medical leave, representing college/university in sports, cultural, N.C.C., N.S.S., or the activities conducted by recognized bodies or because of any valid reason, we offer retest.

6.3.4 Research and Development

- State-of-the-art research laboratory
- Well equipped plant Tissue Culture Lab and a Green House
- Research supervisors/guides in various subjects
- Computerized library and INFLIBNET facility
- Computer lab enabled with internet facility
- The college and the hostels are Wi-Fi enabled.
- Research funds
- The UGC has recognized our college as “College with Potential for Excellence” and provided a special grant of Rs1,40,00,000/- a big part of which is being spent for establishing research facilities in the college.
- The college has spent about Rs.45,00,000/- towards creating research facilities.
- The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
- KSV university has provided additional financial support to several projects (e.g. last year Rs.4,00,000/- has been allocated to 7 faculty.

6.3.5 Library, ICT and physical infrastructure / instrumentation:

- **Library:** The College has a resourceful library and students have free access to it from morning 8:00 to evening 10:00 .
- **Library Reading Hall :** Air conditioned 100 cubicles capacity Reading Hall remains open 24X7 .
- **Computation facility:** A computer lab with over 50 computers enabled with broadband internet and Wi-Fi facility is fully available to students and faculty.
- **Inflibnet:** The College has subscribed INFLIBNET whereby lot of e- journals and e-books are available for research students of the college. Internet facility for students and the library is connected through intranet and is available to each teacher on his/her desktop.
- 24,345 Text & Reference Books
- 83 journals & magazines
- 97000 e-books
- 6000 e- journals
- 609 CD/DVD educational material
- 6 computers with internet facility are available for soft data search.

6.3.6 Human Resource Management

Human resource management							
Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers 36							
D.Sc./D.Litt.	--	--	---	--	--	--	
Ph.D.	--	--	11	1	6	3	21
M.Phil.	--	--	2	--	--	1	03
PG	--	--	6	--	3	3	12*
Temporary teachers 03							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	3	--	3
Part-time teachers 03							
Ph.D.	--	--	--	--	1	--	1
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	2	--	2

*Out of 12, 10 are pursuing research, of which 5 are on the verge of completing Ph.D.

- The college management recruits qualified faculty members as per university guidelines and supports them fully to retain them.
- Provides congenial environment, security and full facility for research
- Provides financial support to carry research projects (e.g. in year 2012-13 eight faculty members have got projects worth Rs. 4,00,000/- by college management)
- Provides financial support to attend international conferences abroad (e.g. Prin. Dr. Ajay Gor and Dr. Chetan Limbachiya received Rs. 50,000/- and 25,000/- respectively to present their research work at conferences in USA)

6.3.7 Faculty and Staff recruitment

- As per the Government & UGC norms faculty and staff recruitment takes place .
- When the State Govt. delays the NOC process for old/new vacancies as per the work- load, the College Trust, as per Govt. academic qualification recruitment process norms, appoints the Faculty as well as Staff not to let the college work hamper for the benefit of the students.

6.3.8 Industry Interaction / Collaboration

Industry interaction

- MOUs with industries
- The institute is associated with various industries for
- Organization of campus interview
- Involvement of experts from Industries in teaching and curriculum design students training and placement like,

Sr No.	Name of the Industry	Sr No.	Name of the Industry
1	Divine Life Care	17	Esquedrughouse
2	West Coast Pharma	18	Nirma Healthcare Gujarat Lab.
3	IFFCO, Kalol	19	Zydus Hospriya
4	Intas Biopharma	20	GSBTM
5	Lincoin Pharma, Ahmedabad	21	Mother Dairy
6	Zydus Cadila, Ahmedabad	22	Torrent Pharma
7	Sanket Metropolis Health Se.	23	Troika Pharma
8	Claris Life sciences Ltd. Ahmedabad	24	Osho Pharma
9	Stanmark Pharma	25	Jay Formulation Ltd.
10	Sabar Dairy	26	Aniket Pharma
11	Coral Pharma	27	Lizard Pharma
12	Prantij Pharma	28	Ganesh Sales
13	Euphoric Pharma	29	Aura Neturaceuticals Ltd
14	Cadila, Dholka	30	Concord Biotech
15	Best roses Biotech	31	Mediwin Pharma
16	Amneal Pharma	32	Textile & MOUs Comp

We have inducted several executives from Industries into our curriculum design committees as listed below.

Sr No.	Executives from Industries & academia for curriculum design committees
1	Mr. Nilesh Trivedi, AGM, Torrent Pharma Ltd.
2	Dr. Hemant Desai, GM, Nirlife Healthcare Ltd.
3	Dr. Mahendra Sadadiya, MD, San Envirotech Pvt. Ltd., Ahmedabad
4	Mr. Deep Modi, Director, Environponics Solutions Pvt. Ltd., Ahmedabad
5	Dr. Anand Bhadalkar, Sector Specialist, Industry Sector, GSBTM, Govt. of Gujarat, Gandhinagar
6	Mr. Sanjay Patel, Director, SP Renewable Energy Source Pvt. Ltd., Anand and SP Energy Resources Pvt. Ltd., USA

The list of MOUs with Industries is separately attached particularly for B.Voc. & C.C. programs.

Annexure V

6.3.9 Admission of Students

The college ensures wide publicity and transparency in the admission process as mentioned below.

- Admission advertisement is published in leading regional and local daily newspapers. The announcement contains detailed information about number and range of courses, eligibility, process of admission and academic as well as support facilities.
- Prospectus giving all the academic, administrative and financial aspects related to admission process is made available to students.
- The detailed information regarding admission is displayed on the college website: www.psshda.org.
- The faculty members of the college personally visit various schools of the neighboring areas to counsel students regarding the career opportunities of the programmes offered by the college.
- The institution actively participates in various education fairs at national and international level e.g. the institute had a stall in 4th Vibrant Gujarat Global Summit at Gandhinagar, the Capital of Gujarat.

Transparency:

- Ours is a Grant-in-aid college with many self financed courses at its ledger and admissions are made as per state government and affiliating university's norms and guidelines.
- We display merit list and admit students purely on merit basis. In few subjects where the number of seats remain vacant, we give admission to students on 'First Come, First Serve' basis.

6.4 Welfare schemes for

Teaching	<ul style="list-style-type: none"> • Group Insurance • Free Education for their children in the campus • Research Scholarships from Kadi Sarva Vishwa Vidyalaya • Travel Loan for International Conference abroad • Study Leave • Maternal Leave even, to self-financed staff • EPF benefits to the permanent faculties of self-financed staff • Workshops for equipment training as well as soft skills in the campus
Non teaching	<ul style="list-style-type: none"> • Group Insurance • Free Education for their children in the campus • EPF benefits • Workshops for soft skill Training in the campus
Students	<ul style="list-style-type: none"> • Merit & Mean Scholarships & Freeships from Govt. & the Trust • Coaching Classes for Competitive Exams • Medical Insurance & Medical Centre at the Campus premises • Skill based Career Oriented Programs • Publication of Students' Magazine • Entrepreneurship Development Programmes • NSS / NCC activities • Saptadhara • UDISHA & BISAG online Expert Lectures etc.

6.5 Total corpus fund generated

4,80,000/-

6.6 Whether annual financial audit has been done Yes ☒ No ☐

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Knowledge Consortium of Gujarat	Yes	IQAC
Administrative	Yes	Knowledge Consortium of Gujarat	Yes	IQAC

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes Yes ☐ No ☒

For PG Programmes Yes ☐ No ☒

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

University reforms

- With the introduction of the CBCS for all the UG and PG programmes continuous evaluation process in internal assessment of 30 marks is inducted. 10 out of the 30 internal marks are given for seminars, quiz, assignments, projects and class room participation.
- The structure of question papers of the external (University) exams of 70 marks is modified so as to include multiple choice questions (MCQ) to prepare the students for competitive examinations.
- The passing level is raised from 35% to 40% in the University as well as internal exam.

Institution reforms

➤ Weekly Test

Institution has been following weekly test pattern for final year B.Sc. students for their internal continuous evaluation. Every Monday, weekly test is organized and out of total 15 such weekly test, marks of best 13 tests are considered for internal assessment. Due to continuous evaluation we have found enhanced performance of the students and rank at university examination. The weekly tests have a weightage of 50% to internal evaluation.

- **Preliminary Examinations:** Along with weekly tests we conduct a prelim, which contributes 50 % to internal evaluation.
- **MCQ tests:** We have introduced MCQ tests as a part of continuous internal

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

6.11 Activities and support from the Alumni Association

For any institution its alumni base serves as its backbone and it can contribute to the development of the organization greatly. We are proud to mention that our Trust is run solely by its alumni.

Our college has an alumni association and the students of this college can register to the alumni association through the college web site.

(<http://www.psshda.org/alumni.php>).

- The alumni association has worked as partner in all round development of our institution. They have instituted scholarships for bright students of the college.
- They have freely donated to the growth of the institution.
- They visit the institution regularly and motivate our students.
- Some of the alumni contribute in designing the syllabi in accordance with the need of the employment market.
- They help us organize campus interviews and guide the students to appropriate jobs.

We organize parent – teachers meetings wherein we discuss general issues regarding students' improvement and gather feedback from parents. Parents take active interest in the development of the college and involve themselves in various activities conducted by college.

6.13 Development programmes for support staff

- The support staff is given soft skill training, especially of Computer Operative Skills to make the administration smooth, effective, accurate and time-saving for the students and the institute as well. In this respect, the newly appointed staff is given training of the Computer Skills by the mother institute MCA college in the campus only.

6.14 Initiatives taken by the institution to make the campus eco-friendly

Ecology and Environment:

- In tune with the current awareness as well as employment opportunities in the field of Environment the college has introduced a PG course (M.Sc.) in Environment Science.
- The institute organizes the environment related programmes, seminars, workshops etc. and subscribes journals / magazines related to ecology and environment. The regular environment awareness programmes among the students and society is observed by N.S.S. unit of the institute. As a part of environmental conversation, tree plantation programmes are organized at adopted village. The maintenance of trees and cleanliness drives are organized as a part of regular activities.
- Our departments of Botany, Zoology and Chemistry also organize the programmes for ecological and environmental awareness. The college possesses a well-maintained Botanical Garden including medicinal plants and green house.

Institute conducts green audit of campus. Institute believes in collective duty to care for our environment. Through a project carried out by Bioscience department, it was analyzed that there are about 1000 trees in the campus and the average standing stock of organic carbon in well grown trees is about 2988 tons.

The institute celebrates world earth day, world ozone day etc to create environmental awareness.

Faculty members of biotechnology department have undertaken the projects to,

- Sustain renewable energy source (Biogas plant),
- Waste management (Composting and waste water recycling) and
- Plantation contributes to make the campus green and sustainable.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

- Introduction of B.Voc. in Textile and Ginning Technology
B.Voc. in Pharmaceutical Chemistry
- Introduction of C.C. in Textile and Ginning Technology
C.C. in Agriculture and Soil Sciences

As per the UGC XII Plan Guideline:

“to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship”

To fulfill the ‘**Skills Gap requirements**’ of the Textile & Ginning Industry of Kadi region as well as the 12 kms. surrounding Chemical Industrial GIDC of Chhatral and the Agricultural Farming Traditional Occupation of the North Gujarat Region, the College applied for B.Voc. & C.C. Programs in the aforesaid disciplines.

Textile and Ginning Technology

Kadi is known as nation’s largest hub for cotton and oil industries. There are around 300 cotton and oil industries located within the 5 km radius of the city- kadi. Gujarat is producing 30% cotton of the nation average production. And Kadi is also the export hub of cotton-bales as 10% cotton-bales(of the national average) have been exported from Kadi. These industries require skilled manpower for operations, maintenance and repair of industrial equipments for cotton ginning, pressing, spinning and oil industries. There is no college available in the state of Gujarat that can generate skilled manpower, which can satisfy the needs of such industries. There will be 100% placement for the students who will pursue this course.

For Agriculture and Soil Science

Apart from these, kadi is a centre of North Gujarat where farming is a traditional occupation for people. People are doing traditional farming for spices and other crops like tomato, lemon, castor oil seeds. By training people with advance agriculture techniques, interest will be developed and young people can be turned to traditional agriculture with Scientific approach , where they can implement advance farming technologies to have maximum production with optimal use water, fertilizers and minimum use of pesticides. So the basic aim to introduce ‘Agriculture and Soil Sciences’ programme is to generate manpower who himself can become entrepreneur in agriculture sector.

- Pharmaceutical Chemistry:

- Gujarat has emerged as an industrial hub in last two decades and there exist a huge demand of skilled pharmaceutical experts.
- There are very few institutes in the state providing Pharmaceutical Chemistry at the bachelor level of study.
- Also B.Sc. Chemistry course is not strong enough to provide in depth knowledge regarding pharmaceutical chemistry, henceforth we plan to design a curriculum providing complete details regarding pharmaceutical world in all aspects to make the candidate fit for the job in pharmaceutical industries.
- **The College has expertise in the specialization:** Yes, The College has two faculty members who can teach medicinal and analytical aspects of pharmaceutical chemistry. Also our trust SVKM, Kadi runs B. Pharm, M.Pharm and Pharm.D. program. So we have pool of experts from our sister institutes who can contribute in the teaching and learning process of the program.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year.	
Plan of Action	Achievements
Develop the infrastructure for B.Voc. and C.C.	- Two extra classroom construction work is sanctioned
Recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C.	- As per University norms, the recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C. is executed.
Accomplished the Physics Laboratory work	- Two Physics Laboratories are developed with around 11 lakh rupees instruments purchased - Teaching & Non-teaching faculty recruitment procedure is executed.
Application for Special Physics in B.Sc.	- Hemchandracharya North Gujarat University sanctioned the course on self-financed bases.
Application for two more course in Community College Course 1: Ceramic Technology Course 2: Home Appliances & Maintenance	- UGC sanctioned 1 course out of the 2 and dispatched the institute 1 Crore rupee grant in the initial state. Course1: Ceramic Technology
MOUs with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work	- With three NAAC 'A' graded colleges, Science, Arts & Commerce College, Pilvai, HNG Uni., V.P. Science College, Vallabh Vidyanagar, S.P. Uni., and M.G. Science College, Guj. Uni. MOUs have been signed for Academic, Research and Collaborative Work for the Faculty as well as Students' development
MOUs with Universities & Industries for academic, research and collaborative work	- MOUs with Agricultural University, Dantiwada & Krishi Vigyan Kendra, Mehsana - MOUs with Cera & Somany Ceramic ISO Co.
To organize Industry-Academia Meet for internship, project and placement purposes	- Three Industry-Academia Meets were organized for the courses of: Course1: Textile and Ginning Technology Course2: Agriculture and Soil Sciences Course 3: Pharmaceutical Chemistry
As a part of FDP, to organize UGC sponsored workshop/seminar	- 2 two days UGC sponsored State level workshops were organized by the Dept. of Mathematics in collaboration with Science, Arts & Commerce College, Pilvai on Scientific Computing Programs of PYTHON & LATEX.
- To organize GIBON, a state level competition, for all Gujarat Bio-technology students	- To organize GIBON, a state level competition, for all Gujarat Bio-technology students on 1 st Feb. 2015
- To Strengthen Industry-Academic Collaboration for Placement & Training	- 40 MOUs with various Industries are signed with for Training & Placement purpose where their expert will come to train the students as well.

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

1. **Soil Health Card Program**
2. **Water Harvesting Program**

**Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

Annexure: IV – i,ii

7.4 Contribution to environmental awareness / protection

Energy conservation

- In Chemistry and Biotechnology laboratories as well as in kitchens in hostel, we are using Piped Natural Gas (PNG) as fuel which conserves energy. In institution, we are using CFL at few places like seminar hall, auditorium, and computer laboratory for and power saver tube lights at other places which conserves energy.

Use of renewable energy

- **Use of renewable source of energy for cooking fuel:** Biotechnology department has set a biogas system in campus which is working entirely on kitchen waste generated in hostel, and the gas generated is used as fuel for cooking in hostel kitchens. A pilot plant has been setup that uses 40 kg of kitchen waste and produces gas of 1200 gm per day which saves the requirement of other nonrenewable fuel.
- **Compost from campus agriculture-plant waste:** The agro-waste that is generated in institution premises is converted into compost. The compost prepared from this is used in gardens as source of organic nutrient.

7.5 Whether environmental audit was conducted? Yes ☒ No ☐

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

Pramukh Swami Science and H.D.Patel Arts College is a premier education institute of the state, affiliated to Hemchandrachaya North Gujarat University, Patan. College is re-accredited 'A' grade by NAAC. College is awarded with potential for excellence by UGC first in 2010 and again after re-accreditation CPE phase II up to 2019 by UGC. College is also awarded with AAA rank-1 by Govt. of Gujarat. Institute offers 7 UG, 6 PG, 2 M.Phil and 6 Ph.D. programmes in the faculty of science and Arts. College also offers 8 certificate courses to inculcate skills for the current needs of local industries. College is having strong Institute- Industry linkages with Sun Agrigenetics Pvt., Ltd, Vadodara., Pashupati AgroGreen Industries, Kadi, Pink Vision Agrotech Ltd., Ahmedabad, Claris Life sciences Ltd., Ahmedabad, Hester Biosciences Ltd., Kadi, Intas Biopharma Ltd., Ahmedabad and Corel Pharma, Kadi. College is having advanced research laboratory with sophisticated equipments like HPLC, GC, FTIR, UV visible spectrophotometer. Apart from this, advance plant tissue culture laboratory have been developed for research in the area of tissue culture.

8. Plans of institution for next year

- Motivation of Faculty for major/minor research projects.
- Organization of FDP
- Organization of Sports Events
- Organization of NSS & NCC Events
- Organization of National level Workshop/Conference in Chemistry, Sanskrit, Gujarati, History & English.

Name : Dr Anand Vyas

Name : Dr Ajay Gor

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

_____*_*_*____

Annexure: I

**Pramukh Swami Science & H. D. Patel Arts College, Kadi,
Affiliated to Hemchandracharya North Gujarat University, Patan, Gujarat**

Academic Calendar: 2014-15

Sr. No.	Details	Date
1	Beginning of the Academic Term	16-6-2014
2	Completion Date of the Admission Procedure	28-6-2014
3	Beginning of the Teaching Work (Semester: 1-3-5)	19-6-2014
4	Last of Submission of the Enrolment Forms of the Under-graduate & Post-graduate student of Sem. I	14-8-2014
5	Internal Examination	Completion by 18-10-2014
6	End of the First Term	21-10-2014
7	October-December Uni. Exams. (ATKT) CBCS Sem. : 1-3-5 Uni. Exams.	07-10-2014 to 21-10-2014 17-11-2014 onwards
8	Diwali Vacation	22-10-2014 to 11-11-2014
9	Beginning of the Second Term Academic Work	22-11-2014 to 09-12-2014
10	Internal Test	16-02-2015
11	March-April University Exam.s (ATKT & CBCS Exams.)	02-03-2015 to 21-03-2015
12	End of the Second Term	25-04-2015
13	Summer Vacation	27-04-2015 to 14-06-2015

Student's Feedback Year: 2014-15

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI Evaluation of the teacher by students – 2014-15 Science Faculty

Que. No.	Department of Mathematics				Department of Chemistry				
	Dr A.S. Gor	Mr A.V. Patel	Mr A.A. Patel	Mr D.G. Patel	Mr C.V. Patel	Dr Z.F. Thakor	Dr M.C.Patel	Dr V.M.Patel	Dr P.M.Chatrabhuji
1	9.032	9.624	6.812	8.562	9.515	8.596	6.191	8.161	7.797
2	9.142	9.563	7.342	8.232	9.262	8.333	6.222	8.202	8.08
3	8.286	9.123	7.482	8.374	9.505	8.282	6.856	7.919	7.818
4	8.453	8.954	7.256	7.984	9.212	8.303	6.373	8.303	7.848
5	8.481	9.422	7.954	8.562	8.479	8.656	5.949	8.161	7.878
6	8.893	9.313	7.343	8.174	9.464	8.515	6.424	8.202	7.919
7	8.236	8.874	7.452	8.174	9.202	8.323	6.585	8.888	7.636
8	9.374	9.702	8.342	9.032	9.666	8.878	7.05	8.333	8.141
9	9.343	9.567	7.873	9.142	9.575	8.909	6.797	8.444	8.303
10	8.841	9.643	7.704	8.673	9.474	8.797	6.878	8.252	8.252
Over all	8.808	9.379	7.556	8.491	9.3354	8.5592	6.5325	8.2865	7.9672

Student's Feedback Year: 2014-15

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI Evaluation of the teacher by students – 2014-15 Science Faculty

Question No	Department of Physics				Department of Biotechnology			
	Mr S.B. Patel	Mr C.A. Patel	Mr Mohit Swadia	Dr Bijoy Roy	Dr K.R. Shah	Mr Ram Suthar	Ms Rajshri Patel	Ms Gayatri Patel
1	5.372	9.324	7.824	8.374	7.927	8.236	7.836	6.127
2	6.102	8.960	8.464	8.508	8.018	8.345	7.745	6.636
3	6.040	8.822	8.464	7.782	7.763	7.745	7.709	6.200
4	5.873	6.826	8.324	8.106	7.509	7.290	6.690	6.018
5	6.324	9.192	8.502	9.467	7.527	7.854	7.327	6.472
6	5.826	8.964	9.003	8.374	8.200	7.836	7.018	7.163
7	7.412	8.916	8.606	8.554	7.945	7.490	6.709	6.727
8	6.962	9.416	9.234	9.232	8.600	8.727	8.000	6.836
9	6.144	8.552	8.462	8.962	8.327	8.490	8.200	6.936
10	6.054	9.104	8.692	8.734	7.854	8.145	7.727	6.854
Over all	6.2109	8.8076	8.5575	8.6093	7.967	8.0158	7.4961	6.5969

Student's Feedback**Year: 2014-15**

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI
Evaluation of the teacher by students – 2014-15
Arts Faculty

Sr No	Department	Name of the Faculty	Students' Feedback Form Questionnaires										Over all Evaluation
			1	2	3	4	5	6	7	8	9	10	
1	Sanskrit	Dr M.J.Joshi	8.65	8.46	8.5	8.69	8.30	8.84	8.61	8.73	8.53	8.92	8.62
		Dr B. H. Vankar	9.23	9.34	9.07	9.11	9.11	9.07	9.07	9.38	8.96	8.84	9.12
		Dr N. K. Patel	8.92	8.23	8.96	8.96	8.69	8.38	8.38	8.73	8.5	8.42	8.61
		Dr A. H. Vyas	8.84	8.65	8.42	8.69	8.46	8.65	8.53	9	8.76	9.03	8.70
2	History	Dr S.V. Chaudhari	9.63	9.56	9.5	9.63	9.81	9.55	9.55	10	9.85	9.8	9.69
		Dr N.J.Parikh	9.36	9.41	9.21	9.55	9.38	9.4	9.38	9.76	9.46	9.73	9.46
		Dr D.M.Patel	8.56	8.81	8.46	8.51	8.93	8.75	8.71	9.4	9.31	9.36	8.88
		Dr A.H.Vyas	9.51	9.4	8.86	9.26	9.26	9.25	9.15	9.71	9.68	9.56	9.36
3	Gujarati	Dr P.P.Patel	8.98	9.02	9.10	9.11	9.01	8.92	9.05	9.20	9.43	9.49	9.13
		Dr B.S.Patel	9.49	9.28	9.20	9.27	10	9.43	9.28	9.30	9.47	9.62	9.46
		Mr K.M.Trivedi	9.11	8.92	8.85	8.97	9	8.91	9.07	9.34	9.30	9.31	9.08
		Dr A.H.Vyas	9.36	9.24	9.05	9.07	9.24	8.84	9.14	9.28	9.24	9.44	9.19
4	English	Mr Samir Pandya	7.94	7.94	7.91	8.045	8.33	8.13	8.60	8.50	8.58	8.81	8.28
		Mr Jatin Kapadia	8.33	8.56	8.18	8.17	8.24	8.37	8.60	8.63	8.71	9.39	8.52
		Ms Kundan Makwana	8.29	8.25	8.31	8.08	8.13	8.29	8.18	8.91	8.59	8.51	8.35
		Ms Farhana Shekh	8.65	8.40	9.04	8.33	8	8.22	8.26	8.32	8.41	8.52	8.41
		Dr A. H. Vyas	9.51	9.26	9.01	9.06	9.34	9.31	9.27	9.63	9.42	9.59	9.34

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI
Evaluation of the teacher by students – 2014-15
Students' Feedback Form

Name of the Teacher:

Department:

No.	Attributes	Avg. score (out of 10)
1	Communication Skills (in terms of articulation and comprehensibility)	
2	Interest generated by the teacher	
3	Ability to integrate course material with environment/other issues to provide a broader perspective	
4	Ability to integrate across the courses / draw upon other courses	
5	Accessibility of the teacher in and out of the class (includes availability of the teacher to motivate outside class discussion)	
6	Ability to design quizzes/examinations/assignments /projects to test understanding of the course	
7	Provision of sufficient timely feedback	
8	Knowledge base of the teacher	
9	Sincerity / Commitment of the teacher	
10	Overall rating	
Moderate (below 6)		Good (6-8)
		Excellent (above 8)

The institute appreciates your sincere efforts and is hopeful for further improvement in concerned areas in order to enhance the overall performance of the students.

Best wishes,

Dr. A.S. Gor

(Principal)

Annexure : III

Paper Publications With Impact Factor & h index

Sr. No.	Title	Journal	Year & Volume(No); Page	ISSN No/ Impact factor
Dr Ajay S Gor h-index: 5 i10: 4				
1	Numerical behavior of instability in displacement process through homogeneous porous media	International Journal of Mathematics and Computer Applications Research (IJMCAR)	2014 4(4) ;33-46	ISSN 2249-6955 IF: 4.29
2	Finite Element solution of one dimensional flow in unsaturated porous media	IOSR Journal of Mathematics	2014 10(3) ;49-57	ISSN 2319-7676
3	Finite Element solution of one dimensional flow in unsaturated porous media with parabolic permeability	ISST Journal of Mathematics and Computing system	2014 5(1) ;15-24	ISSN 0976-9048
4	Multi-Objective inventory model under fuzzy environment with storage space and production cost constraints by Karush-Kuhn-Tucker conditions approach	International Journal of Innovations in Science and mathematics	2014 2(5) ;431-434	ISSN 2347-9051
Prof. Ashok A. Patel				
1	Extension of a newsboy problem with lost sales recapture as function of $\left(\frac{r}{p}\right)^m$ and normally distributed demand error	International Journal of Physics and Mathematical sciences	(2014)(A) 4(1) 26-33,	ISSN 2277-2111.

2	A single period model where the lost sales recapture is a function of $\log_m(1 + \frac{r}{p})$	International Journal of Physics and Mathematical sciences,	(2014)(B) 4(1),12-19.	ISSN 2277-2111.
3	Newsboy problem with lost sales recapture as function of $\log_m(1 + \frac{r}{p})$ and normally distributed demand error	IOSR Journal of Mathematics	(2014)(B) 10(3), 26-31	ISSN 2278-5728
4	Newsboy problem with lost sales recapture as function of $\log_m(1 + \frac{r}{p})$ and Beta distributed demand error	IOSR Journal of Mathematics	(2015)(C) 11(2), 10-17	ISSN 2278-5728
5	Newsboy problem with lost sales recapture as function of $(\frac{r}{p})^m$ and Beta distributed demand error	IOSR Journal of Mathematics	(2015)(C) 11(2), 94-101	ISSN 2278-5728

Dr.K.J.Bhatt

h-index:

i10:

1	Ocimum Sanctum: The Indian Medicinal Plant International	Journal of Chemtech Applications	Vol. 3Issue1,Feb2014 ,	ISSN2319-7099
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Dr. M. C. Patel

h-index: 7

i10: 6

1	Synthesis and characterization of 1, 3, 4-thiadiazole clubbed thiol derivatives	<i>International Journal of Chemtech Applications</i>	(2015) Vol. 4; Issue 1; Page 26-34	ISSN: 2319-7099.
2	Ultrasound assisted synthesis and antimicrobial evaluation of carbonitrile bearing pyran derivatives,	<i>International Journal of Chemtech Applications, ACAIJ, 15(2)</i>	(2014) Vol. 3; Issue 3; Page 41-56	ISSN: 2319-7099

3	A new RP-HPLC-UV method for the simultaneous quantification of aceclofenac in bulk & its tablets,	<i>Analytical Chemistry an Indian Journal. Trade Science Inc. - India ACAIJ, 15(2)</i>	2014 [049-053].	ISSN : 0974-7419
4	Development and validation of RP-HPLC-UV method for simultaneous quantitation of clopidogrel bisulphate and aspirin in bulk drug,	<i>Analytical Chemistry an Indian Journal. Trade Science, ACAIJ, 15(2)</i>	2014 [043-048]	ISSN : 0974-7419
5	Carbon fiber reinforced composites based on novel poly(amide-imide)s and epoxy systems,	<i>International Journal of Chemtech Applications,</i>	(2014) , 2(4); 1-12.	ISSN: 2319-7099.

Dr. P. M. Chatrabhuji

h-index: 1

i10:

1	Synthesis and characterization of 1,3,4-thiadiazole clubbed thiol derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(1) ;26-34	ISSN 2319-7099
2	Synthesis and characterization of Novel 2-sulfanyl-N-(1,3,4-thiadiazol-2-yl) acetamide derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(3) ;26-34	ISSN 2319-7099
3	Studies on 1-[(4-methoxycinnamoyl) amino]-2-phenyl-4-aryl methine-5-oxo-imidazolines as antimicrobial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(2) ;21-25	ISSN 2319-7099

4	Design and biological screening of some new 1-[(4-methyl cinnamoyl) amino]-2-methyl-4-aryl methine-5-oxo-imidazolines	International Journal of Chemtech Applications (INTJCA)	2015 4(2);26-31	ISSN 2319-7099
5	Synthesis of 5-oxo-imidazolines derivatives as anti-microbial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(1);51-56	ISSN 2319-7099
6	Synthesis, Characterization and antimicrobial studies on novel 1-[(4-chloro cinnamoyl) amino]-2-methyl-4-aryl methine-5-oxo-imidazolines.	International Journal of Chemtech Applications (INTJCA)	2015 4(1);44-48	ISSN 2319-7099
7	Antimicrobial studies of newly synthesized 1-[(4-methoxycinnamoyl) amino]-2-methyl-4-aryl methine-5-oxoimidazolines	(OCAIJ)	2015 11(7);267-272	ISSN 0974-7516
8	Synthesis of 5-oxo-imidazolines derivatives as anti-microbial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(1);51-56	ISSN 2319-7099

Dr Kamlesh shah

h-index: 3 i10: 1

1	Biodegradation of azo dye compounds	International Research Journal of Biochemistry and Biotechnology	1 (2)005-013	ISSN: 2167-0438
2	Study of wilt producing Fusarium sp. from tomato (Lycopersicon esculentum Mill)	International Journal of Current Microbiology and applied science	3(8) 854-858	ISSN: 2319-7706 1.59 IF
3	Formation of Composting from Food Waste & Neem Plant Debris	SSRN-e library	SSRN-id2460794	E library

4	Assessment of Coastal Water Quality Parameters of Selected Areas of Marine National Park & Sanctuary (Okha, Sikka & Khijadiya)	SSRN-e library	SSRN-id2486522	E library
5	Optimization and production of Polyhydroxybutarate(PHB) by <i>Bacillus subtilis</i> G1S1 from soil	International Journal of Current Microbiology and applied science	3 (5) 377-387	ISSN: 2319-7706 IF 1.59
6	Assessment of Plankton biodiversity of Selected Areas of Marine National Park & Sanctuary (Okha, Sikka & Khijadiya)	International Journal of Chemtech Applications	Vol. 3; Issue 3; Page 20-29	ISSN: 2319-7099

Ram chandra S. Suthar h-index: 2 Citiation: 11 Impact factor: 18.54

1	Effect of culture filtrate of <i>Fusarium equiseti</i> on seed germination and seedling growth of cumin (<i>Cuminum cyminum</i>)	<i>Indian Phytopathology</i>	2014 67(2) 193-194	2.19
2	Study of wilt producing <i>Fusarium</i> sp. from tomato (<i>Lycopersicon esculentum</i> Mill)	<i>Int.J.Curr.Microbiol.App.Sci.</i>	2014, 3-8, 854-858	4.53
3	Micropropagation of Garden Rose (<i>Rosa Indica</i> L.) through Different Size of Node Explants.	<i>Life sciences</i>	2014, 1-4/107-111	2.70
4	<i>In Vitro</i> Shoot Multiplication of Garlic (<i>Allium Sativum</i> L.)	<i>Life sciences</i>	2015, 2-1,15-17	2.70
5	<i>In vitro</i> seed germination and propagation of kagdi lemon (<i>Citrus Limon</i> L.)	<i>Journal of global Agriculture and Ecology</i>	2015, 2(4), 130-134	

Jasmin Kubhani		h-index:	i10:	
<u>1</u>	Synthesis and characterization of 1,3,4-thiadiazole clubbed thiol derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(1);26-34	ISSN 2319-7099
<u>2</u>	Synthesis and characterization of Novel 2-sulfanyl-N-(1,3,4-thiadiazol-2-yl) acetamide derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(3);26-34	ISSN 2319-7099
Dr Dipak Patel				
<u>1</u>	Contribution of Tatya Tope in Gujarat in the Revolution of 1857	Ideal Research	2015 Vol. 1 (1)	ISSN 2454-857X
Dr Anand Vyas				
<u>1</u>	Manju Kapur's <i>A Married Woman</i> as a Feminine Assertion of the Marginalized Voice of Lesbianism	ICCP Postmodernism and Indian English Literature	Vol.1 51-52	ISSN 978-81-923438-5-3

Best Practice: I Soil Health Card Program:

The goal is to provide soil health cards for lands of farmers nearby Kadi town. The project under-taken by college with direct involvement of students is intended to inform farmers regarding the health of land and the crops that will be suitable for the land. We take samples of soil and analyze it in the college laboratory to identify important soil elements (Nitrogen, Potassium and Phosphorous) present in soil and the conductance & pH of soil. A farmer with such a soil health card can identify which crop he should consider and how much fertilizer his land will require.

3. The Context

- In agricultural progress of India, the application of technological and scientific innovations have brought a plenty of changes, and thus, made a notable contribution in agricultural field.
- To increase agricultural productivity, it becomes highly necessary for a farmer to know the soil elements of his farm before farming. The fertility and productivity depend upon inherent soil elements. If the farmer comes to know the proportion of important soil elements (Nitrogen, Potassium and Phosphorous) present in soil and the conductance & pH of soil, he can identify which crop to consider and how much fertilizer the land will require. Such knowledge will lead the farmer to a large productivity of crops with optimal use of fertilizer. With a view to making the farmer aware of abovementioned fact, the Government authorities of Gujarat have stirred an ambitious project to provide a **Soil Health Card** to each farmer of all over Gujarat.
- The task of providing a Soil Health Card is huge. In order to achieve this huge task of project in time, the State Government authorities handed over this project to selected science colleges of Gujarat, because sample tests in such an enormous quantity are not possible at insufficient laboratories for agricultural research in Gujarat and therefore, it was decided to get this task done by teachers and students of selected science colleges of Gujarat. Our college was chosen for such an important task.
- Accordingly, for last three years, the task of soil test & analysis is smoothly and successfully going on in our institution..

1. The Practice

- For this prolonged mission of Agricultural Development and for the programme of providing Soil Health Card to each farmer, the authorities of the State Government employed Gram Sevaks and some local agencies to collect soil samples.
- On scientific basis, these collected samples were labeled and sent to our laboratory for testing.
- The authorities of the State Government allotted the grant of Rs. 80/- per sample. This grant was useful to purchase necessary equipments and chemicals. This task was performed with the help of the staff and students.
- The collected samples were labeled and their elements: Nitrogen, Phosphorus, Potassium, etc., were tested and analyzed. The pH and Conductance of the soil samples are also measured.
- Through accurate guidance, untiring efforts of students and teachers the following number of Soil Health Cards were prepared. Finance allotted to our institution and expenditure occurred during three years are as following.

- Through accurate guidance, untiring efforts of students and teachers the following number of Soil Health Cards were prepared. Finance allotted to our institution and expenditure occurred during three years are as following.

Sr. No.	Year of analysis	Samples	Total Revenue Generated (Rs.)	No. of Students involved	Amount disbursed to students (Rs.)
1	2011-12	10000	800000/-	10	1,52,000/-
2	2012-13	6168	370020/-	11	74,280/-
3	2013-14	9167	550020/-	11	1,10,000/-
4	TOTAL	25335	17,20,040/-	32	3,36,280/-

The samples were analyzed for different physicochemical tests including pH, Carbon content, Potassium, E.C and Phosphorous. Based on these data a health card is generated.

- Soil Health Card project is being carried out by students of B.Sc. and M.Sc. In this program, students get remuneration as well as certificate from the government. Students get exposure and hands-on training for using different equipments for soil analysis.

5. Evidence of Success

- The college has been recognized as a Soil Testing Laboratory from Govt. of Gujarat. We tested the soil of our Goushala (Cowshed) where we have planted Wheat. After soil analysis we came to know that the soil contains high Potassium and moderate Nitrogen and Phosphorus. So, according to the Soil Heath Card we recommended to our farmers to avoid the use of potash fertilizer in the farm for Wheat crop. After following our instruction, Goushala (Cowshed) farmers found an increase in the yield of wheat as compared with previous years. Apart from this, it reduced the wastage of fertilizer and helped in limited use of Nitrogen and Phosphorus fertilizer. We also gave instruction to use organic compost which helps in balancing the mineral elements essential for plant growth.

Conclusion:

- As per the soil analysis report, we reduced the use of chemical fertilizer cost by 21.34% per hectare which resulted in a 15.38% increase in the production and 20.12% increase in the net Income from the wheat crop sown /hectare in the Gaushala farm (Cow-house).

Best Practice: Water harvesting

➤ **Waste water management and its recycling:**

The students of Department of Biotechnology had worked out a pilot plant for treatment for laboratory waste water using waste water treatment technology. Noticing the success of the plant, the project was proposed to the management and now the institute has developed a large-Scale Waste Water Treatment plant. A total of 60,000 liters/day of waste water generated from the hostels and kitchen is treated by electrolysis technique in the treatment plant. Approximately, 50,000 liters of water / day is generated from the treatment plant and is used for recreational use like water for gardening and construction purpose.

➤ **Rainwater harvesting and its use in laboratories:**

Our institute has underground tank with capacity of 50,000 liters where the rainwater is collected and thereafter used for the laboratory work in the Chemistry and Biotechnology Department.

Use of renewable energy

➤ **Use of renewable source of energy for cooking fuel:** Biotechnology department has set a biogas system in campus which is working entirely on kitchen waste generated in hostel, and the gas generated is used as fuel for cooking in hostel kitchens. A pilot plant has been setup that uses 40 kg of kitchen waste and produces gas of 1200 gm per day which saves the requirement of other nonrenewable fuel.

➤ **Compost from campus agriculture-plant waste:** The agri-waste that is generated in institution premises is converted into compost. The compost prepared from this is used in gardens as source of organic nutrient.

List of Industry – Academia MOUs

1	Pashupati Agro Green Industries, Kadi
2	Corel Pharma Chem.Ahmedabad
3	Shree Ganesh Oil Mill and Ginning Factory, Kadi
4	D. Raja Cotton Pvt. Ltd., Kadi,
5	Pashupati Cotspin LLP for establishing an Institute - Industry linkage, Kadi
6	Janki Industries, Kadi
7	Shiv Shakti Ginning & Pressing Factory
8	Jagdish Cotton Industries, Kadi
9	Tirupati (Guj) Cot Spin Limited, Chhatral
10	Tirupati Balaji Cot Fab Pvt.Ltd, Chhatral
11	Pink Vision Agro.Tech Gandhinagar
12	Mr.Ashutosh Mhaskar, Director, Designer, Writer
13	Mr.Hardik Thakkar , Exeucitive Producer, Mumbai.
14	Greenfield Biotech, Adalaj, Gandhinagar.
15	Gujarat Hybrid Seeds, Ahmedabad
16	Sejasmi Industries (India) Pvt.Ltd.
17	Kayvee Aeropharma Pvt.Ltd. Kadi
18	West Coast Pharmaceuticals Ltd., Ahmedabad
19	Lincoln Pharmaceuticals Ltd., Khatraj
20	Krishi Vigyan Kendra, Ganpat Vidyanagar ,Kherva
21	National Engineering Works, Ahmedabad
22	President (Works), Cera Sanitary Ware Ltd.Kadi
23	Vice President CP Fittings, Cera Sanitary Ware Ltd.Kadi
24	Pranam HVAC Engineering Pvt.Ltd., Ahmedabad.
25	Somany Ceramics Ltd.
26	Hitachi Home & Life Solutions (India) Limited, Kadi
27	Pranam Technologies , Ahmedabad
28	Bahhauddin Science College, Junagadh.
29	Shri U.P.Arts,Smt.M.G.Panchal Science and Shri V.L.Shah Commerce College, Pilvai
30	M.G.Science Institue , Dadasaheb Mavalnker Camus, Navrangpura, Ahmedabad -9
31	V.P. & R.P.T.P.Science College, Vallabh Vidyanagar-388120
32	Sheth M.N.Science College, Patan (N.G.) 384265
33	Green Cloud Soft PVT Ltd, Gandhinagar
34	Peach Technovations Private Limited,Gandhinagar
35	Hotel Planet, Kalol
36	Hotel Krsna Lila –Khoda, Ahmedabad
37	Panoramic Holidays Limited, Ahmedabad
38	Saffrony Holiday Resort (Saffrony Club Pvt.Ltd.), Mehsana
39	Labdhi Business Solutions, Ahmedabad
40	Pcube Softech, Ahmedabad
41	Yudiz Solutions Pvt.Ltd., Ahmedabad
42	Arman Technology, Ahmedabad