### **CRITERION II:**

### **TEACHING – LEARNING AND EVALUATION**

### 2.1 Student Enrolment and Profile

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

The University ensures wide publicity for admission to its courses of study by releasing admission notification in the leading national and state dailies. The admission notice is also posted on the University Website. The Information Brochure (IB) is printed well in advance, which contains all information related to admissions, eligibility, date of entrance test, date of counseling, etc. The IB can also be downloaded from the University Website. Transparency in admission process is ensured by displaying the results of entrance examinations of the applicants before counseling. THERE IS NO DONATION/CAPITATION FEE. The admission is entirely based on combined score of academic merit and entrance test score. The minimum percentage required in the qualifying examination (12<sup>th</sup> standard or equivalent) for admission to all undergraduate programmes excepting BHMCT, BBA & B.Com is 60%, while the same for BHMCT, BBA & B.Com is 50%.

Every year education fair is organized by the university in different parts of the country. Any complaint received from the students regarding admissions is attended to promptly and in all fairness.

2.1.2 Explain in detail the process of admission put in place by the University. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the University (please specify).

The university invites online applications for admission to all the UG and PG courses offered by university teaching departments. The criterion for admission to each course is determined by the demand and approved by the Academic Council every year. The merit list is prepared on a scale of 200 marks as under:

- (a) Entrance Test (100 marks)
- (b) Academic Merit 100 marks
- (c) Overall merit is determined by adding the academic merit to the score obtained by the candidate in the entrance examination.
- (d) Only those candidates who have passed their Secondary Examination or Senior Secondary Examination (10+2) from recognized Boards are considered for admission.

The candidate must secure at least 50% marks in the Entrance Examination to be eligible for admission.

Admissions to B.Ed. course are made by the University on the basis of Pre Teachers Entrance Test (PTET) conducted by Rajasthan Government and for admissions to M.Ed course are made by the university on the basis of PMET conducted by University of Rajasthan.

## 2.1.3 Provide details of admission process in the affiliated colleges and the University's role in monitoring the same.

Not Applicable (The University does not affiliate any colleges)

## 2.1.4 Does the University have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

Information/Admission Brochures containing the guidelines for admissions to various courses offered by university teaching departments are issued annually well in time. The admission process is reviewed periodically based upon the past year's experience and feedback that are discussed threadbare by the central admission committee of the University. The recommendations of the committee are further deliberated in the Academic Council before taking any policy decisions. It is a continuous process and has contributed a lot in evolving an objective and transparent system of admission.

## 2.1.5 What are the strategies adopted to increase / improve access for students belonging to the following categories:

SC/ST OBC Women Persons with varied disabilities Economically weaker sections Outstanding achievers in sports and other extracurricular activities

- 1. University helps students of various categories in getting scholarship under all schemes of state and central government.
- 2. University also provides freeships to students of undermentioned category:
  - (a) Dependent of Martyrs
  - (b) Topper of each class
  - (c) Financially weak/neady students
  - (d) Children of the university employee.
  - (e) Students whose parents die during the course of study.

### 2.1.6 Number of students admitted in University departments in the last four academic years:

Categories	2010-11		2011-12		2012-13		2013-14	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	55	06	38	05	30	03	34	03
ST	25	04	28	05	14	01	51	11
BC	361	60	297	42	175	27	131	26
General	759	276	641	189	390	155	240	73
Others	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Category-wise details of admissions made during the last four years to various courses are given below:

2.1.7 Has the University conducted any analysis of demand ratio for the various programmes of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.

Programmes	Number of applications	Number of students admitted	Demand Ratio
UG	2010	406	4.9
PG	608	125	4.8
Integrated Masters	75	11	6.8
M. Phil	Not Applicable	Not Applicable	Not Applicable
Ph.D.	168	33	5.1
Integrated Ph.D.	Not Applicable	Not Applicable	Not Applicable
Certificate	Not Applicable	Not Applicable	Not Applicable
Diploma	19	3	6.3
Any other (please specify)	Not Applicable	Not Applicable	Not Applicable

2.1.8 Were any programmes discontinued / staggered by the University in the last four years? If yes, please specify the reasons.

NONE

### 2.2 Catering to Diverse Needs of Students

## 2.2.1 Does the University organize orientation / induction programme for fresher's? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.

The University organizes half-a-day's session for the orientation/ induction of the fresher's in the beginning of the academic session for their interaction with their seniors, faculty and other staff of the department, which is a general policy of the university. During the orientation programmes, the following issues are addressed to make the fresher's feel at home:

- i) The fresher's are introduced to the faculty and other staff of the department.
- ii) They are told as to who should be contacted for what purpose.
- iii) They are apprised of the library facilities such as timings, services and their privileges.
- iv) They are posted with the student welfare schemes such as scholarships etc.
- v) They are informed about the co-curricular and extra-curricular activities in which they can involve themselves to display and sharpen their talent.
- vi) They are provided information about the sports facilities available in the university.
- vii) They are enlightened about the administrative structure of the university.
- viii) They are briefed about the medical facilities which they can avail of.
- ix) They are particularly made aware of the anti-ragging rules, rules against harassment of women, and how to conduct during their stay in the university.
- x) They are given information regarding examination and Academic rules.

The fresher's are addressed during the orientation programme by the Deans, Principals and faculty of the departments, besides by the experts drawn from other areas as well such as library, Dean-students welfare etc. This is necessitated by the urge of the university to adapt the fresher's to the new environment

## 2.2.2 Does the University have a mechanism through which the "differential requirements of the student population" are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

In the beginning of each academic session, the faculty members do make efforts to identify the slow learners. They are given personal attention both in class lectures and practicals. Special classes are also held to help the slow learners. This provides an excellent platform to understand and solve individual problems of such students. Each student is assigned a Teacher Guide (TG) who would interact with the student periodically at least once a month to review the student's academic progress and render counseling with regard to personal and psychological related issues. However, no formal mechanism has been devised for the purpose.

### 2.2.3 Does the University offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?

Various remedial courses particularly English and Mathematics for first year students are conducted free of cost by the University. Besides these two remedial courses, bridge courses such as soft skills training and professional certification courses like Microsoft Certifications are arranged in association with industry professionals. The courses are need-based and adjusted into the time table by means of holding extra classes on weekends/holidays by University's Corporate Training School (CTS).

## 2.2.4 Has the University conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?

Though the University has not conducted a formal study in this matter but the University ensures that the students of economically disadvantaged categories get equal and every benefit at each step so that they get at par with other students, particularly in terms of academic growth. University also implements schemes of the state government and help students in getting scholarship. In addition, liberal assistance in the form of scholarships is provided to such students. The University Corporate Training School (CTS) on the campus provides exhaustive coaching, training and counseling facilities to students for various competitive examinations like GATE, employment in Public Sector Undertaking, Banks Recruitment etc.

#### 2.2.5 How does the University identify and respond to the learning needs of advanced learners?

Advanced learners are encouraged to undertake various higher level academic development programmes. These are more in the form of summer training, industrial training, etc. Such students are also sent to various research laboratories and reputed industrial units to imbibe new techniques and to carry out dissertation work in the actual work settings. In addition, extension lectures and workshops are arranged to make these students familiar with recent advancements in the concerned subjects. Quiz programmes are also arranged to enhance their general knowledge. Efforts are made by the faculty to judge the potential of such students and they are made aware of various career opportunities in keeping with their career strengths.

### **2.3 Teaching-Learning Process**

### 2.3.1 How does the University plan and organise the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?

The academic calendar is prepared every year before the commencement of the academic session giving teaching-learning and evaluation schedules. The schedule of admissions, teaching semesters, examination schedule, etc. are clearly defined in the Academic Calendar and strictly adhered to. In addition, it also gives information about academic tours, seminars,

guest lectures, and other activities of each department. The Calendar is made available to students, teachers and other concerned officials in the beginning of the session for compliance and implementation and the same is also put on the website. At the department level, individual faculty members are encouraged to formulate teaching plan, arrangement of resource material, etc. as per Internal Quality Assurance Committee guidelines (IQAC). The University has developed its own Quality Teaching Protocol Code for ensuring quality of teaching, learning and evaluation' Evaluation is done through unit tests, seminars, viva-voce, assignments, Midterm and end semester examinations.

The assessment of student's performance is done through a combination of Continuous Internal Evaluation and End Semester Examinations. The following are the components for Theory & Practicals:

	Theory	Practical
CIE	30%	60%
ESE	70%	40%

2.3.2 Does the University provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

Yes, the course outlines and course schedules are provided prior to the commencement of the academic session. The course schedule is prepared by individual faculty members keeping in view the implementation of academic calendar schedule. The process of implementation is controlled individually. In case of any difficulty, the matter is discussed and resolved at the departmental level.

All the teaching departments conduct two Mid-term tests (First Mid-term and second Midterm) during a semester. Each course is divided into 5 units. The faculty teaching a course is required to complete teaching of first two units (Units 1 and 2) for the first term test and Units 3 and 4 for the second Mid-term test. The final semester-end exam will cover all the five units of the course.

The first and second Mid-term Test each carry 10% weightage.

The University follows 14-15 weeks of teaching in a semester. The first Mid-term and second Mid-term are conducted in week 6 and week 12. There is no Mid-semester recess.

## 2.3.3 Does the University face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.

The curricula for different courses are completed well within specified time under normal circumstances. As per previous experience, various schedules are met as per the academic calendar. However, in exceptional situations, if there is any problem in meeting the stipulated time frame, the matter is resolved at the departmental level by initiating extra measures and initiatives. It is pertinent to mention that during the last five years, there has been no problem in implementing the academic calendar.

### 2.3.4 How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating lifelong learning and knowledge management.

Presentation of seminars, writing of assignments and dissertation in some programs are compulsory at the post-graduate level as a part of their course requirement. Performance in seminars gives an excellent opportunity to students to improve upon the knowledge level and is evaluated rigorously by the faculty. Technical fests, contests, debates, quizes, etc. are arranged and organized mostly by the students themselves so that student-centered learning exercises are developed in each department. The students are encouraged to visit library to inculcate in them the lifelong self-learning habit.

In addition, almost all departments have subject-specific community clubs such as CLC (Entrepreneurship Development) Robotronics, Innovation, Green for creating awareness about environment and climate change, Wellness for health awareness etc. wherein students hold the posts of office bearers. Various functions organized by these clubs help contribute a great deal for the development of self-management qualities and skill promotion.

## 2.3.5 What is the University's policy on inviting experts / people of eminence to deliver lectures and/or organize seminars for students?

The University encourages inviting experts / persons of eminence to deliver lectures and/or hold seminars. For this purpose, a separate budget provision is made for each department. Various details to this effect are provided in the academic calendar. Invited/distinguished lectures are also arranged in interdisciplinary fields so as to keep students abreast with the latest developments.

Students are encouraged to attend seminars, conferences, and workshops arranged by various other departments. The University encourages and facilitates students' interaction with eminent scientists, technologists, academics, corporate leaders, successful entrepreneurs and thought leaders so that the students are motivated to become leaders in their chosen field/discipline.

#### 2.3.6 Does the University formally encourage blended learning by using e-learning resources?

The blending of classroom teaching with learning by using e-resources is an essential component of the modern teaching-learning process. In pursuit of this requirement, all the faculty members have been provided with PCs/desktops with intercom and internet facility in their offices. Computer labs have been set up/upgraded in almost all the departments in the last few years. Internet facility is also available to students for on-line exposure to the latest developments in the related subjects. Both the teacher and the taught have been provided access to e-resources and five databases across the campus so that they may keep themselves abreast of the latest developments in their respective fields. The campus is wi-fi enabled.

## 2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?

A variety of modern teaching-learning aids are used for classroom teaching in almost all teaching departments. LCD Projectors, Interactive boards, e-podiums with panel, and computers are actively used to prepare and deliver classroom lectures. Internet facility is also available to students for on-line exposure to the latest developments in the related subjects.

**ICT Facilities:** The multimedia lab has installed state-of-the-art Polycom Core System which can record lectures being delivered in fifteen e-classrooms in the Institute simultaneously and can stream video lessons from recorded and live sessions to multiple users. It has also facilities to enable regular lectures and special events to be conferenced across DEI Campus and also with other Universities with which DEI has signed MoUs. All the faculties have e-class rooms and the campus is Wi-Fi enabled.

DEI has established advanced ICT Centres at Bangalore and Delhi with leased broad-band connectivity in order to utilize the technical talent available there. Lectures are also delivered by IIT Delhi faculty from the ICT Centre at Delhi.

**Open Education Resources:** Open Education Resources of a large number of courses are uploaded on the University Web portal, 'vidyaprasar.dei.ac.in' and available free to any one.

**Virtual Laboratories:** Under MHRD Projects, DEI has developed the following virtual laboratories:

- 1. Virtual Electronics Lab
- 2. Virtual Electro-chemistry Lab
- 3. Virtual Microwave Lab
- 4. Virtual Strength of Materials Lab and
- 5. Virtual Power Systems Lab.

These labs are unique in the sense that practicals are conducted by learners on-line in real mode from any college in India using internet. They get the results of practicals, including waveforms also on-line on their screens in real time. These laboratories make available costly equipment to learners where actual experiments are performed and student gets guidance and the software inhibits erroneous steps which are harmful or destructive. The technology developed at DEI can be used for teaching practical work even in hazardous environment.

**EDUSAT:** The University has been allotted time on C-channel of EDUSAT for delivering lessons to its study centres and it has also arranged for multi- channel transmission of its lessons using broad-band connectivity through a server in USA.

## 2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the University's educational processes?

There is no formal mechanism in the University in this regard. However, individual teachers on their own maintain constant interaction with peers and their knowledge base update. The same is then integrated at different levels in the teaching and research processes.

## 2.3.9 What steps has the University taken to convert traditional classrooms into 24x7 learning places?

The university has taken the following initiatives to convert traditional classroom into 24x7 learning places:

- i) Internet labs have been established in the library and other departments for use by the students.
- ii) IP-based access have been provided to the students to e-journals, 05 databases, library portal for aggregating access to open sources e-resources, etc.
- iii) Internet connectivity including Wi-Fi facility has been provided in hostels.
- iv) e-learning material including lectures delivered in the classroom is planned to be uploaded on servers for 24x7 access to the students.

## 2.3.10 Is there a provision for the services of counsellors / mentors / advisors for each class or group of students for academic, personal and psychosocial guidance? If yes, give details of the process and the number of students who have benefitted.

A University level Career Counseling and Guidance Cell has been established which functions under the convenorship of a Professor. Also, a similar counseling and guidance cell is established at the departmental level under the respective teacher in-charges to guide the students. The faculty members are always readily available to students to guide them in their academic pursuits and help to solve their personal problems. Teachers also counsel the students on their career opportunities and try to make them aware of their strengths and shortcomings from time to time. In addition, the offices of Deans, Deputy Registrar (Academic Affairs), Proctors also provide the needed help and guidance to students in resolving their problems.

The university has implemented the Tutor Guardian Scheme by which the student's academic progress in monitored by the teachers. Under this scheme a group of 15-20 students of a class are assigned to each Faculty member(called as the guardian). The Faculty member provides guidance and counseling not only in academic matters but also on their personal problems.

In addition, the Chief Warden provides personal help and guidance to students who reside in hostels.

# 2.3.11 Were any innovative teaching approaches / methods / practices adopted / put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?

In addition to classroom teaching, various alternate learning methods are employed for dissemination of knowledge depending on the nature of the subject and the topic to be discussed. In the science laboratories, most of the experiments are planned and conducted in an open-ended manner so as to facilitate easy understanding of the basics of the subject. Some science departments like Biochemistry, Engineering, Computer Science and Applications, Pharmacy, etc. have incorporated compulsory industrial training / projects of 2-6 months as a part of regular course curriculum in order to enable the students to have first-hand experience of technical work skills.

In other subjects like hotel management, management and commerce etc., field work constitutes an essential ingredient of learning. Apart from these methods, educational tours at University / Departmental level, participation in conferences, seminars, workshops, contests, quiz programmes, debates, and essay-writing competitions, etc. are organized on regular basis. Students are encouraged to attend the seminars, conferences, and workshops arranged by .various other departments and other colleges and universities. Experimental learning forms an integral part of overall learning and development.

Internet facility is available to students round-the-clock for on-line exposure to the latest developments in the related subjects. Seminars, group discussions, industrial training, and field work, etc. are initiated and organized by the students on their own initiative to make them more involved in academic activities and learn by doing.

### **Student Mentoring System**

It is an on-line portal system on which all students enrolled in all courses of University are registered right at the time of admissions and reregister in start of each semester. This platform gives an open platform of transmission of information, learning and connectivity between student and all Program coordinators and course coordinators.

The teacher gives the notes in the beginning of the class, upload the Course lesson plans and topics of next day classes, makes the student to read it and then discusses the topic. This method has given very good response from the students.

During the last four years, the University has established **e-class rooms** across the University and encouraged the use of e-learning and multimedia resources to enhance teaching-learning experience. The faculty members have enthusiastically come forward to adopt multimedia projections in their classroom teaching to supplement blackboard teaching. Students are encouraged to give their Seminars as power point presentations.

The impact of extensive use of **electronic aids** resulted in better presentations by students in national and international seminars leading to several awards. The **web based lessons** have made a tremendous impact on teaching-learning environment.

Teachers using innovative teaching methods are given due recognition by giving extra increments and promotions.

## 2.3.12 How does the University create a culture of instilling and nurturing creativity and scientific temper among the learners?

Students are encouraged through various Govt. schemes to undertake **research based projects** at the UG and PG levels. Faculty and students are encouraged to participate in **Conferences, Symposia and Seminars**, Summer research fellowships to expose them to state-of-the-art research in the world and to highlight their own contributions.

Conferences and competitions such as essay writing, quizzes, model and paper presentations are organized to develop creative thinking in students. The University encourages multidisciplinary **collaborative research** amongst departments, faculties and institutes.

The university encourages **Industry-Institute interaction** through Consultancy, technology transfer and sponsored research and also encourages prototype development, commercialization of know-how and entrepreneurship.

The students have unbridled access to the Internet Lab in the library, and computer labs in their respective departments for data collection, information gathering, data analysis, preparation of research papers, preparation of PowerPoint presentations in seminars/conferences, etc. They also get opportunity to tweet and interact with peers in their respective areas of interest.

The students have been provided access to e-journals, 5 databases and other library resources through Intranet over the entire campus. Teachers are encouraged to attend seminars, symposia, and conferences etc. held outside to improve and enrich their academic achievements and are provided the necessary financial assistance. Several new and sophisticated equipments have been added in the research and teaching labs in keeping with the recent advancements.

## 2.3.13 Does the University consider student projects mandatory in the learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?

Project work is mandatory in all the undergraduate programmes of engineering (B.Tech). A dissertation is mandatory in all the Postgraduate programmes (M.Tech & M.Pharm).

- \* Number of projects executed within the university: More than 100 every year.
- \* *Names of external institutions associated with the university for student project work*: DST has provided financial assistance for two projects.
- \* *Role of faculty in facilitating such projects*: Faculty helps in idea generation, design and fabrication.

### 2.3.14 Does the University have a well qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?

The University is blessed with highly talented and dedicated faculty with 60% staff either having Ph.D or pursuing PhD near completion. The faculty student ratio is 1:15. In case of short fall, the University engages paid Research Scholars for assistance in practical classes.

### 2.3.15 How are the faculty enabled to prepare computer-aided teaching/learning materials? What are the facilities available in the University for such efforts?

The University encourages all teaching departments for adopting the use of Information Communication Technology (ICT) for teaching as a part of common teaching strategy. The entire faculty has been provided with PCs/desktops with internet facility and IP-based intercom right at their tables. For details of learning materials, reference is invited to Section 4.2 and its sub-sections.

## 2.3.16 Does the University have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?

The university has a mechanism for evaluation of teachers by students. The feedback is obtained at the end of each semester by distributing a pre-designed proforma as given below. The feedback obtained from students is discussed and analyzed by the Departmental Committees and the corrective measures are recommended/ taken based thereon.

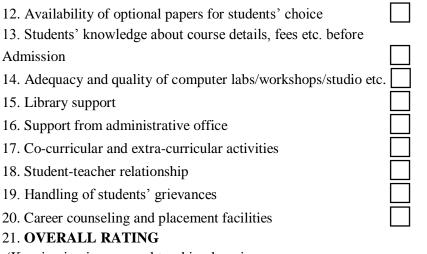
#### PROFORMA FOR FEEDBACK FROM STUDENTS

#### NAAC RATING SCALE

4.0	3.0	2.0	1.5
Α	В	С	D
Very Good	Good	Satisfactory	Unsatisfactory

#### **PARAMETERS Score (Out of 4)**

1. Quality of course content	
2. Course coverage and delivery	
3. Knowledge base of the teachers <sub>2</sub>	
4. Communication skills of the teachers <sup>3</sup>	
5. Sincerity and commitment level of teachers	
6. Practical or applied content of teaching	
7. Teachers' accessibility outside the class4	
8. Teachers' testing methods to evaluate students <sup>5</sup>	
9. Learning outcomes	
10. Encouragement by teachers for class participation	
11. Fairness of internal assessment6	



(Keeping in view general teaching learning environment)

### 2.4 Teacher Quality

## 2.4.1 How does the University plan and manage its human resources to meet the changing requirements of the curriculum?

The faculties are encouraged to interact with industry, reputed academics and centres of excellence for bringing in contemporary thought processes and industry practices. THE academic staff college of the university continuously strives to upgrade the faculty in terms of current knowledge so that the faculty equipped with new knowledge transfers it to their students. The faculties are encouraged to interact with fellow academics from other universities and colleges so that good academic practices are picked up. The faculties are encouraged to be external examiners and paper setters for other colleges/universities and they are given on duty leave. Plans are being made to provide the faculty six to twelve months sabbatic leave so that they can take up teaching and research positions at reputed institutions in India and abroad. Faculty exchange is also encouraged and supported.

At present, the University has full time faculty strength of 130. Any shortfall in faculty is being met through the services of guest faculty from other colleges

Highest	Profe	essors	Asso	ciate	Assi	istant	Total
Qualification			Professors		Professors		
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc/D.Litt.	-	-	-	-	-	-	Nil
Ph.D	11	03	06	04	-	01	25
M.Phil	-	-	-	-	-	-	Nil
PG	02	-	11	02	26	18	59
Temporary teachers							
Ph.D	-	02	-	02	01	-	05

### 2.4.2 Furnish details of the faculty

M.Phil	-	-	-	-	-	-	Nil
PG	-	-	02	-	15	12	29
Part-time teachers							
Ph.D	-	-	-	-	-	-	Nil
M.Phil	-	-	-	-	-	-	Nil
PG(P)	-	-	-	-	39	07	46

2.4.3 Does the University encourage diversity in its faculty recruitment? Provide the following details (department / school-wise).

The University encourages diversity in its faculty recruitment. New faculty recruitment is advertised on University website, national Newspapers, Job portals like Naukri.com etc. The recruitment is Planned on India basis and graduates (Masters and Doctoral qualified) of other universities are highly encouraged to join the university so that the university has rich and diversified pool of expertise. In-breeding is discouraged.

Details are given in the table below:

Department	% of faculty	% of faculty	% of faculty	% of faculty
/School	from the same university	from other universities with in state	from universities outside the State	from other countries
Gyan Vihar School of Engg & Tech.	14 %	61.6%	22%	2.3%
Gyan Vihar International School of Business Management	09%	55%	36%	Nil
Gyan Vihar School of Pharmacy	22%	22%	56%	Nil
Gyan Vihar School of Hotel Management	Nil	50%	50%	Nil
Gyan Vihar School of Sciences	33%	67%	Nil	Nil
Gyan Vihar School of Education	25%	75%	Nil	Nil

2.4.4 How does the University ensure those qualified faculties are appointed for new programmes / emerging areas of study (Bio-technology, Bioinformatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership etc.)? How many faculty members were appointed to teach new programmes during the last four years?

The vacant faculty positions are given wide publicity through advertisement in leading national dailies. The same is also put on the university website. Selections are made strictly in accordance with UGC/AICTE qualifications by Selection Committees, constituted as per guidelines prescribed by these national bodies. A statutorily constituted Screening Committee ensures that the applicants invited for interview have the necessary qualifications, and possess the required specialization, if any. The experts invited as experts on selection committees are from the newly emerging areas of study in the subject concerned. A total of about 25 faculty members have been appointed in the newly emerging areas during last four years.

- 2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the University? Ten (10) Emeritus / Adjunct Faculty / Visiting Professors of different disciplines are on the rolls of the University. The list of such teachers shall be made available to the Peer Team during the "On-site visit.
- 2.4.6 What policies/system are in place to academically recharge and rejuvenate teachers (e.g. providing research grants ,study leave , nomination to national/international conferences/seminars , in service training, organizing national/international conferences etc.)?

Policies/systems are in place to academically recharge and rejuvenate teachers (*e.g.* providing research grants, study leave, nomination to national/international conferences/seminars, inservice training, organizing national/international conferences etc.).

Faculty members are encouraged to apply for visiting professorship and research fellowships under cultural exchange programme or other schemes. There is a provision in the University for various types of leaves for such assignments -03 years study leave without pay, and 01 year sabbatical leave at a stretch subject to a maximum of 03 years and On duty leave for attending national and international conferences, symposia, and seminars to enhance their academic vision.

## 2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?

The list of such teachers shall be made available to the Peer Team during the "On-site visit".

## 2.4.8 How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?

The brief information of the faculty who have undergone various staff development programmes are given below.

Academic Staff Development Programme	No. of Faculty
Refresher Courses	123
HRD Programmes	30
Orientation Programmes	120
Staff Training conducted by the University	110
Staff Training conducted by other institutions	112
Summer/Winter Schools, Workshops, etc.	120

2.4.9 What percentage of faculty have been invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies? participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies? presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies? teaching experience in other universities / national institutions and other institutions? Industrial engagement? international experience in teaching?

About 45% of the faculty have served as resource persons in workshops/ Conferences / seminars during the last five years.

About 20 % participated and presented their research work in different national and international workshops/seminars/conferences.

About 20% of the faculty members presented papers in workshops / seminars /conferences conducted or recognized by professional bodies.

Nearly 70% of the faculty have teaching experience in other universities / national institutions and other institutions.

About 5% of the faculty members have industrial engagement.

Nearly 1% of the faculty members have international experience in teaching.

### 2.4.10How often does the University organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?

Various teaching departments and the University's Academic Staff College organize academic development programmes such as curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc. from time to time as per requirement. This exercise is undertaken atleast once in three years, generally with focus on enriching the teaching-learning process.

The periodicity of such programmes is monthly, once a semester and during summer and winter breaks depending on the nature and necessity of the programmes.

#### 2.4.11 Does the University have a mechanism to encourage

- \* Mobility of faculty between universities for teaching?
- \* Faculty exchange programmes with national and international bodies?

If yes, how have these schemes helped in enriching the quality of the faculty?

The University follows the guidelines laid down by the UGC from time to time for this purpose. In addition, the University has entered into MoUs with several Universities /Academic Institutions/Industries, containing provisions for mutual faculty visits, and student exchange as well. Some of the faculty members have worked out arrangements for collaborative research work in national/international laboratories in their individual capacity.

### **2.5. Evaluation Process and Reforms**

### 2.5.1 How does the University ensure that all the stakeholders are aware of the evaluation processes that are operative?

The scheme of examination and the syllabi of each subject are made available to departments. The scheme of marks for internal assessment, assignments, and seminars as approved by Board of Studies of the University is also made available to all departments. It is widely circulated among the teachers and students. Syllabi for various courses are also uploaded on the University website

for ready reference by the stakeholders. A uniform system for evaluation is followed in all the schools of the university. The University has well documented Examination & Academic Code available on university website and a copy of the same is made available to all the Deans, Principals, Vice Principals and Heads of Departments.

## 2.5.2 What are the important examination reforms initiated by the University and to what extent have they been implemented in the University departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.

In the recent past, the University has initiated various reforms in the examination system. Rules for promotion to higher semesters have been simplified and made common for different courses. Pass marks and grace marks rules have also been made more student-friendly and simpler.

The University has provided partial autonomy to departments for paper-setting and evaluation in order that results are declared in time. In addition, the University has undertaken the computerization of examination related works. The university has adopted following recommendations of UGC:

1. To maintain secrecy each question paper setter is asked to set two question papers containing different questions, out of which any one is used by the university.

2. The end semester examination answer books are coded before being given to examiners for evaluation to avoid partiality.

3. The university has adopted credits system and providing result of each course in grading and overall result in terms of CGPA on 10 point scale from session 2010-11.

We have also fully computerized system for Entrance Examinations. Admissions too have been made on line with affect from 2013-14. The university is seriously pondering over getting question bank prepared in different courses for turning over to Multiple Choice Question System.

# 2.5.3 What is the average time taken by the University for declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the University for publication of examination results (e.g. website, SMS, email, etc.).

On an average, the results are declared within 1½ months from the date of last examination. Odd semester results are declared by the end of January, while those of even semester by the end of June. This became possible due to automation of examination related works. The results are posted on university website and students can download their complete marksheet. Attempts are being made to send this information to the student's through SMS and e-mail. Likewise Entrance Examinations have been automated. Their results are declared, posted on website and information sent to candidates by SMS within seven days from the date of examination.

## 2.5.4 How does the University ensure transparency in the evaluation process? What are the rigorous features introduced by the University to ensure confidentiality?

In University Teaching Departments, all HODs have, in consultation with Examination Department, been empowered to get the question papers set, conduct examinations. The Examinations Department gets the answer books evaluated. For undergraduate courses, central spot-evaluation method is being followed. Some major reforms in evaluation have been introduced during last two years. For various courses offered in the University, semester system with continuous evaluation has been introduced. For under-graduate courses, a centralized evaluation has been preferred for expeditious evaluation and declaration of results. If a candidate is not satisfied with evaluation, provision for rechecking, and re-evaluation of the answer book is in vogue.

Question papers are divided into five units spread over the whole syllabus. Two questions are set from each unit and the candidate is expected to attempt one out of the two in each unit. Each question paper setter is asked to prepare two sets of question paper with no repetition of questions.

The internal assessment evaluation is completely transparent. Students can see their answer scripts and marks obtained. However, evaluation for the final written examination is kept confidential till the declaration of result. The answer books are coded before given to examiners for assessment. In case any student is not satisfied with evaluation, he/she is allowed to get it re-evaluated.

2.5.5 Does the University have an integrated examination platform for the following processes? Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc. Examination process–Examination material management, logistics, etc. Post-examination process – Attendance capture, OMR-based exam result, auto processing, generic result processing, certification, etc.

The university makes an elaborate arrangement and follows meticulously devised procedures for pre- and post-examination process to ensure smooth conduct of examinations. To address

all these challenges, the examination system has been computerized. All details of a student, received through online system, are used all through the conduct of examinations, compilation of results, and issue of Degrees. All kinds of fees are received through online payment gateway. However, appointment of staff for examination duties is done manually by the Centre Superintendent who is normally the Principal of School.

Examination Forms are filled by students online and attendance sheets are also generated online.

#### 2.5.6 Has the University introduced any reforms in its Ph.D. evaluation process?

Ph.D. these are got evaluated as per traditional system from two external examiners appointed by the Vice-Chancellor. However, annual seminars, six monthly progress reports, publication of one research paper in peer reviewed journals before thesis submission, viva-voce, etc. are some of the steps which constitute the process of Ph.D. thesis evaluation. As laid down by the UGC, each student desirous of doing Ph.D. has to undergo a 6-month duration pre-Ph.D. course work. Plagiarism is checked by special software and the plagiarism content should not exceed 32%.

## 2.5.7 Has the University created any provision for including the name of the college in the degree certificate?

Not Applicable

#### 2.5.8 What is the mechanism for redressed of grievances with reference to examinations?

For attending to students' grievances regarding evaluation, there is a provision for rechecking and/ or reevaluation of answer books. There also exists a system offirst-hand inspection of the answer books by the candidates. The university has nominated a staff to receive the complaints. In case of any complaint regarding the question paper, a formal representation is required to be made to the Controller of Examinations. The Complaint Committees, constituted by the Chairman of Board of Studies of the concerned subjects, examine and resolve such complaints. Necessary relief, wherever justified, is given in accordance with prescribed rules in the matter.

## 2.5.9 What efforts have been made by the University to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.

The Examination department has been divided into following 4 cells to streamline its functioning

- Cell-I deals with all work related to Engg Cluster 'A & B' (Engg I year, CS, IT & CA departments)
- Cell-II deals with all work related to Engg Cluster 'C & D' (ECE, EE, ME & CE departments)
- Cell-III deals with all work related to Non-Engg. Deptts (Management, Hotel Management, Pharmacy, Education & Sciences)

Cell-IV deals with students grievances and solve their problems promptly.

Full coordination is ensured among these Cells in all matters right from the pre-examination process to the completion of post-examination process. Regular meetings are held in the office of the Controller of Examinations to discuss issues that arise from time to time and corrective future course of action initiated/taken. All Branches work in close coordination with each other. Above all, examination system has been automated providing great relief to the students and the administration alike.

### 2.6. Student Performance and Learning Outcomes

## 2.6.1 Has the University articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

The graduate attributes include, but go beyond, the disciplinary expertise or technical knowledge that has traditionally formed the core of most University courses. They are qualities that also prepare graduates as agents for social good in an unknown future. Inculcation of such qualities, skills and understandings among its graduates during their sojourn in institution, is realized as manifestation of vision, mission and quality policy adopted by the University.

## 2.6.2 Does the University have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?

The University takes special care to introduce the latest developments in any subject curricula on a continual basis, which, in turn, is always in consonance with the goals of national development. To keep pace with the latest developments, the University has made information technology an integral part of the teaching-learning strategies. Computers, digital/LCD projectors, and other

electronic gadgetry have been made available in all the teaching departments. The University has also provided computers/ laptops with internet connection to each faculty member on his desk. The online learning resources have made available in all teaching departments through local area network to enable the teachers to keep themselves abreast with the latest developments in their respective areas of interest.

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

The course contents of all academic programmes are regularly updated. The modifications are made from time to time to incorporate the latest developments so as to help students prepare for national tests like NET, GATE etc. In the semester system, a compulsory component of internal assessment based on sessional tests, assignments, seminars, etc. has been introduced. To ensure better and continuous participation of students, 30% weightage has been given to internal assessment. A good number of open-ended innovative experiments have also been set up in science laboratories to explain the basics of the subject. The viva-voce examination is an integral

## 2.6.4 How does the University collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?

The feedback on various components of teaching and evaluation is taken from the students to improve the quality of teaching-learning processes. The feedback so obtained is analyzed at the

departmental/University level as per guidelines of the IQAC and findings implemented to improve teaching-learning process and over the barriers to learning.

### 2.6.5 What are the new technologies deployed by the University in enhancing student learning and evaluation and how does it seek to meet fresh / future challenges?

This information has been provided at several places in this report. Reference is invited to Section 4.3.6 of this report. Besides, the science labs have been equipped with latest equipments. For details, reference is invited to Section 3.3.1.

Any other information regarding Teaching, Learning and Evaluation which the University would like to include.

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