Reforms on the Examination Procedures and Processes

- The Institute follows semester system for both B.Tech and M. Tech programs and the performance of a student in each semester shall be evaluated subject wise with a maximum of 100 marks for theory and 100 marks for the practical subjects. In addition to the theory and practical subjects, an industry oriented mini-project, seminar, comprehensive viva-voce and project work will have a weightage of 50, 50, 50 and 200 marks respectively.

- The evaluation of theory and practical subjects is based on continuous internal and semester end external examinations. The institute will modify the Academic/Examination regulations from time to time for enhancing the quality of education.

- A candidate shall be deemed to have secured the minimum academic requirement in a subject if he/she secures a minimum of 35% of marks in the end semester examination and a minimum aggregate of 40% of the total for the B.Tech Program and 40% and 50% respectively for the M.Tech Program.

- The B.Tech student has to earn 192 credits (apart from the non-credit courses) and an M.Tech student has to earn 84 credits to satisfy the minimum academic requirement to obtain the degree. Marks obtained in all the credits are considered for the calculation of CGPA.

  - The mid semester/semester end examination notification along with the time table will be issued and uploaded on the Institute website by following the schedule of the academic calendar. Day wise / room wise/ year of study wise seating arrangement is prepared for all the subjects. Required number of faculty for invigilation is drawn from the departments.

  - The pre-examination works like preparation of final data base of the candidates who are eligible to appear for the semester end exams, sending the data for preparation of preprinted barcoded OMR answer booklets, preparation of nominal rolls, Hall tickets, room wise seating plans and invigilation duties and D-forms during the examination time are taken care with the help of the examination management system software.

  - The question paper for the end semester exam (Two sets) will be set by two independent external/internal faculty members who taught the subject for at least three years drawn from the list of paper setters approved by the board of studies. The question paper drawn at random from the two sets is moderated by a senior internal teacher for the required standard and coverage of the syllabus.

  - The end semester answer scripts are evaluated in a spot valuation camp organized in the institute or some times in a reputed institute outside the city by taking the approval of the Chief Controller of Examinations (Principal).

  - The mid semester marks and the end semester marks are integrated for the final results processing and also for the printing of grade sheets.
The Challenge evaluation system and showing the evaluated answer script to the student are the measures taken as a part of the transparency in the evaluation system.

Strict adherence to the Institute academic calendar and timely publication of results.

Question paper is thoroughly scrutinized to ensure the standard, spread of the syllabus and mapping of COs and following BLOOMS taxonomy.

Question Banks are being prepared and planning to generate question papers through software.

For engineering drawing and machine drawing practice and examinations the Institute is using Auto cad.

Some of the teachers are conducting online assignment tests as a part of the internal assessment.

Processes Integrating IT

Examination Management System (EMS) services are available to integrate all the activities in the examination branch. The pre and post examination activities are integrated, starting with examination notification, generation of time tables, list of eligible students to generate hall tickets based on the attendance and generation of data base for the preprinted OMR answer booklets, seating arrangements in the examination halls, invigilation duties, D-forms during examinations are generated with it. The internal continuous assessment marks are also uploaded in the data base of EMS and will be integrated with end semester marks at the time of results processing.

The Institute is using the OMR technology for the printing of preprinted bar coded answer booklets thereby avoiding manual coding of answer booklets, scanning the marks slips and processing the results and printing the reports and certificates.

Payment gateway is also available for the payment of various fees online by the students to make the registrations online for various services.

The EMS is enabling the student to download the hall tickets and results online.

Complete automation of examination process helps in the successful execution of examination processes such as monitoring of examination fee payment, examination schedule, seating arrangement, attendance monitoring, coding and decoding of scripts, marks data entry, preparation of programme wise results.

Continuous internal assessment system

Continuous internal assessment is done through conducting various tests from time to time.

Two theory mid semester exams, two assignment tests and a mid-practical exam are conducted for each paper of the subject in each semester for B. Tech & M. Tech Programs.

In between, seminars, group discussions, show and tell and quizzes etc activities are also conducted.

Mini project done by the student is continuously reviewed at 3 stages.
- The assignment test is conducted by the concerned teacher, some conduct online test, some by giving home assignment, some by assigning course projects and some through quiz etc.
- Once these tests are finalized, the marks of the student are uploaded in database with EMS software and the physical copies of the marks lists along with the mid semester answer scripts are submitted to the exam branch for further scrutiny and storage.
- The institute has changed student evaluation system from Percentages to Grading system.

**Examination reforms introduced**

Examination and Evaluation division is an unique central division in the Institute which caters the needs of all stake holders. The Examination & Evaluation section strives to formulate and implement a credible and reliable evaluation system. It emphasizes strict and flawless examination system maintaining uniformity and consistency in assessment and evaluation. All the examinations are conducted under the supervision of Examination & Evaluation section headed by the Controller of Examinations and the results are declared after the approval of the concerned Examination committee/Results committee of the college. The Examination branch has brought the following reforms since UGC gave an Autonomous status in the year 2012.

- ✓ Strict adherence to Institute Academic calendar
- ✓ Quick publication of results and issuing necessary certificates on time there by helping the students to secure admission for higher studies and to join the organizations in which they are placed.
- ✓ Question paper setting as per BLOOMS Taxonomy.
- ✓ Question paper is being thoroughly scrutinized by moderating it for maintaining uniformity of coverage of syllabus among all the units.
- ✓ Grading System is being implemented in the evaluation and assessment of students in place of percentage of marks.
- ✓ OMR based Answer script was introduced for ensuring strict confidentiality by avoiding manual coding in the Examination and evaluation system.
- ✓ Online registration and download of Hall tickets of the candidates is being implemented.
- ✓ Complete automation of examination processes - helped in the successful execution of examination processes such as monitoring of examination fee payment, examination schedule, seating arrangement, attendance monitoring, coding and decoding of scripts, marks data entry, preparation of programme wise results.
- ✓ Systematic evaluation process supported by Examination management system (EMS) allows timely publication of results.
- ✓ The question paper pattern has been revised to test the comprehension of the students over the whole syllabus.
✓ Grievances committee dealing with the grievances of students was introduced and the mechanism for quick settlement of grievances is addressed.
✓ Introduced online assignment tests as a part of the continuous internal assessment.
✓ System generated randomised allotment of invigilation duties was implemented.
✓ Planning to generate Question banks to generate the question paper by software itself.
✓ Online publication of results
✓ Provision for Challenge evaluation system has been introduced.
✓ Publication of research in reputed journals derived from dissertation work performed by the P.G candidates was made mandatory.
✓ Anti-Plagiarism check was implemented for P.G courses major project.
✓ Communicating the Evaluation system to the stakeholders through printed student academic regulations hand book, displaying through institute website and through faculty mentor.
✓ Parents can access the performance of their ward through Examination portal.
✓ Permission to use an amanuensis for taking the Examination by the Student.
✓ Concessions to Physically Challenged students with minimum 40% of disability are implemented.
  a) Exemption from paying the Examination fee.
  b) Reduction in pass percentage.
  c) allowing excess time as per the norms
✓ Extending the Accidental Insurance policy to the staff of the Examination branch.
✓ Special squads are appointed to maintain strict & flawless system during conduct of Examinations.
✓ Prompt actions against the students who are involved in malpractice by the Malpractice Committee constituted to deal with malpractice cases.
✓ Inclusion of photograph, Aadhaar number, Mode of study and Medium of Instruction was introduced to include them in certificates as per the UGC directions.
✓ Several security features are embedded in the certificates to avoid tampering.