2.5 EVALUATION PROCESS AND REFORMS

2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) / Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution

Criterion Number	**2**
Metric	**2.5.3**
Details	**IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) / Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution**
Pages	**1-09**

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Evaluation Process:

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 practical subject. Summer Internships shall be evaluated for 50 marks, Full Internship &Project work in final semester shall be evaluated for 200 marks, mandatory courses with no credits shall be evaluated for 30 mid semester marks.

A student has to secure not less than 35% of marks in the end examination and a minimum of 40% of marks in the sum total of the mid semester and end examination marks taken together for the theory, practical, design, drawing subject or project etc. In case of a mandatory course, he/she should secure 40% of the total marks.

Theory Courses

Assessment Method	**Marks**
Continuous Internal Assessment	30
Semester End Examination	70
Total	**100**

i) For theory subject, the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End-Examination.

ii) For practical subject, the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End- Examination.

iii) If any course contains two different branch subjects, the syllabus shall be written in two parts with 3 units each (Part-A and Part-B)and external examination question paper shall be set with two parts each for 35 marks.

iv) If any subject is having both theory and practical components, they will be evaluated separately as theory subject and practical subject. However, they will be given same subject code with an extension of ‘T’ for theory subject and ‘P’ for practical subject.

a) Continuous Internal Evaluation

i) For theory subjects, during the semester, there shall be two midterm examinations. Each midterm examination shall be evaluated for 30 marks of which 10 marks for objective paper (20 minutes duration), 15 marks for subjective paper (90 minutes duration) and 5 marks for assignment.

ii) Objective paper shall contain for 05 short answer questions with 2 marks each or maximum of 20 bits for 10 marks. Subjective paper shall contain 3 either or type questions (totally six questions from 1 to 6) of which student has to answer one from each either-or type of questions. Each question carries 10 marks. The marks obtained in the subjective paper are condensed to 15 marks.

Note:

- The objective paper shall be prepared in line with the quality of competitive examinations questions.
- The subjective paper shall contain 3 either or type questions of equal weight age of 10 marks. Any fraction shall be rounded off to the next higher mark.
- The objective paper shall be conducted by the respective institution on the day of subjective paper test.
- Assignments shall be in the form of problems, mini projects, design problems, slip tests, quizzes etc., depending on the course content. It should be continuous assessment throughout the semester and the average marks shall be considered.

iii) If the student is absent for the mid semester examination, no re-exam shall be conducted and mid semester marks for that examination shall be considered as zero.

iv) First midterm examination shall be conducted for I, II units of syllabus with one either or type question from each unit and third either or type question from both the units. The second midterm examination shall be conducted for III, IV and V units with one either or type question from each unit.

v) Final mid semester marks shall be arrived at by considering the marks secured by the student in both the mid examinations with 80% weight age given to the better mid exam and 20% to the other.

For Example:

Marks obtained in first mid: 25

Marks obtained in second mid: 20

Final mid semester Marks: (25x0.8) + (20x0.2) = 24

If the student is absent for any one midterm examination, the final mid semester marks shall be arrived at by considering 80% weight age to the marks secured by the student in the appeared examination and zero to the other. For Example:

Marks obtained in first mid: Absent

Marks obtained in second mid: 25

Final mid semester Marks: (25x0.8) + (0x0.2) = 20

b) End Examination Evaluation:

End examination of theory subjects shall have the following pattern:

i) There shall be 6 questions and all questions are compulsory.

ii) Question I shall contain 10 compulsory short answer questions for a total of 20marks such that each question carries 2 marks.

iii) There shall be 2 short answer questions from each unit.

a) In each of the questions from 2 to 6, there shall be either/or type questions of 10 marks each. Student shall answer any one of them.

iv) The questions from 2 to 6 shall be set by covering one unit of the syllabus for each question.

End examination of theory subjects consisting of two parts of different subjects, for Example: Basic Electrical &Electronics Engineering shall have the following pattern:

i) Question paper shall be in two parts viz., Part A and Part B with equal weight age of 35 marks each.

ii) In each part, question 1 shall contain 5 compulsory short answer questions for a total of 5 marks such that each question carries 1mark.

iii) In each part, questions from 2 to 4, there shall be either/or type questions of 10 marks each. Student shall answer any one of them.

iv) The questions from 2 to 4 shall be set by covering one unit of the syllabus for each question.

Practical Courses

Assessment Method	Marks
Continuous Internal Assessment	30
Semester End Examination	70
Total	**100**

b) For practical courses, there shall be a continuous evaluation during the semester for 30 sessional marks and end examination shall be for 70 marks.

c) Day-to-day work in the laboratory shall be evaluated for 15 marks by the concerned laboratory teacher based on the record/viva and 15 marks for the internal test.

d) The end examination shall be evaluated for 70 marks, conducted by the concerned laboratory teacher and a senior expert in the subject from the same department.

- Procedure: 20 marks
- Experimental work & Results: 30 marks
- Viva voce: 20 marks.

In a practical subject consisting of two parts (Eg: Basic Electrical & Electronics Engineering Lab), the end examination shall be conducted for 70 marks as a single laboratory in 3 hours. Mid semester examination shall be evaluated as above for 30 marks in each part and final mid semester marks shall be arrived by considering the average of marks obtained in two parts.

e) For the subject having design and/or drawing, such as Engineering Drawing, the distribution of marks shall be 30 for mid semester evaluation and 70 for end examination.

Assessment Method	Marks
Continuous Internal Assessment	30
Semester End Examination	70
Total	**100**

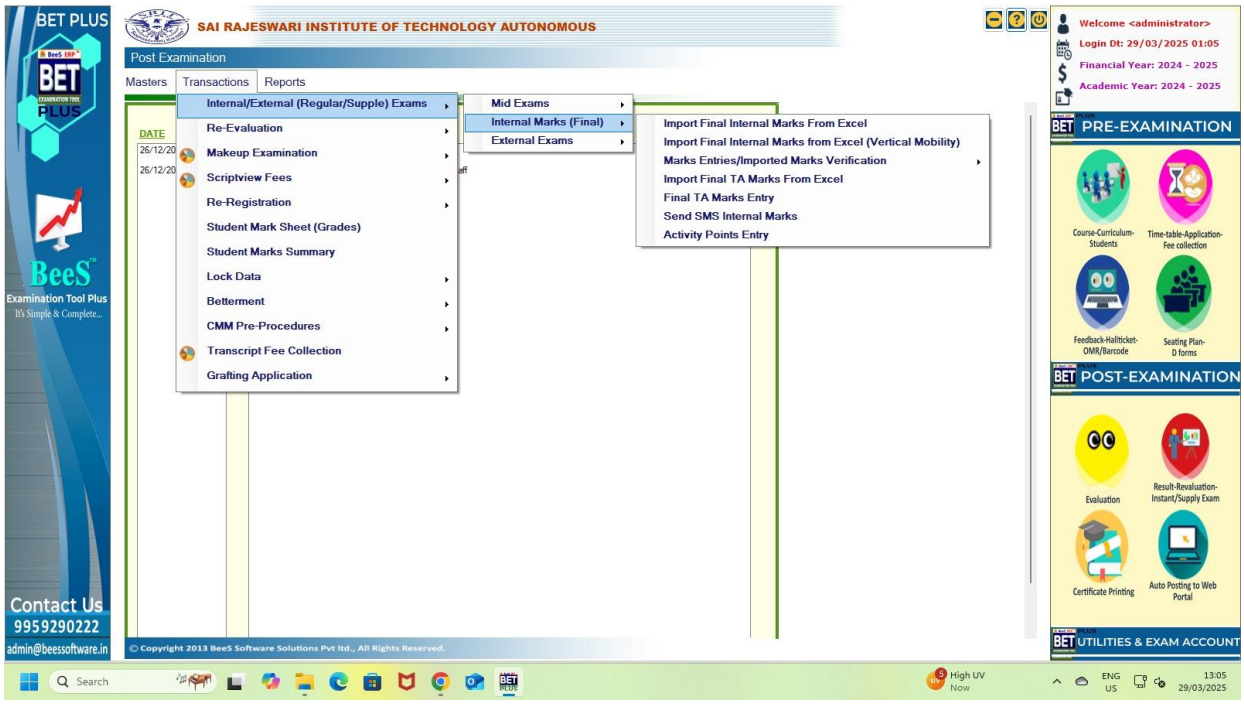
Day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2 hours each for 15 marks with weight age of 80% to better mid marks and 20% for the other. The subjective paper shall contain 3 either or type questions of equal weight age of 5 marks. There shall be no objective paper in mid semester examination. The sum of day- to-day evaluation and the mid semester marks will be the final sessional marks for the subject.

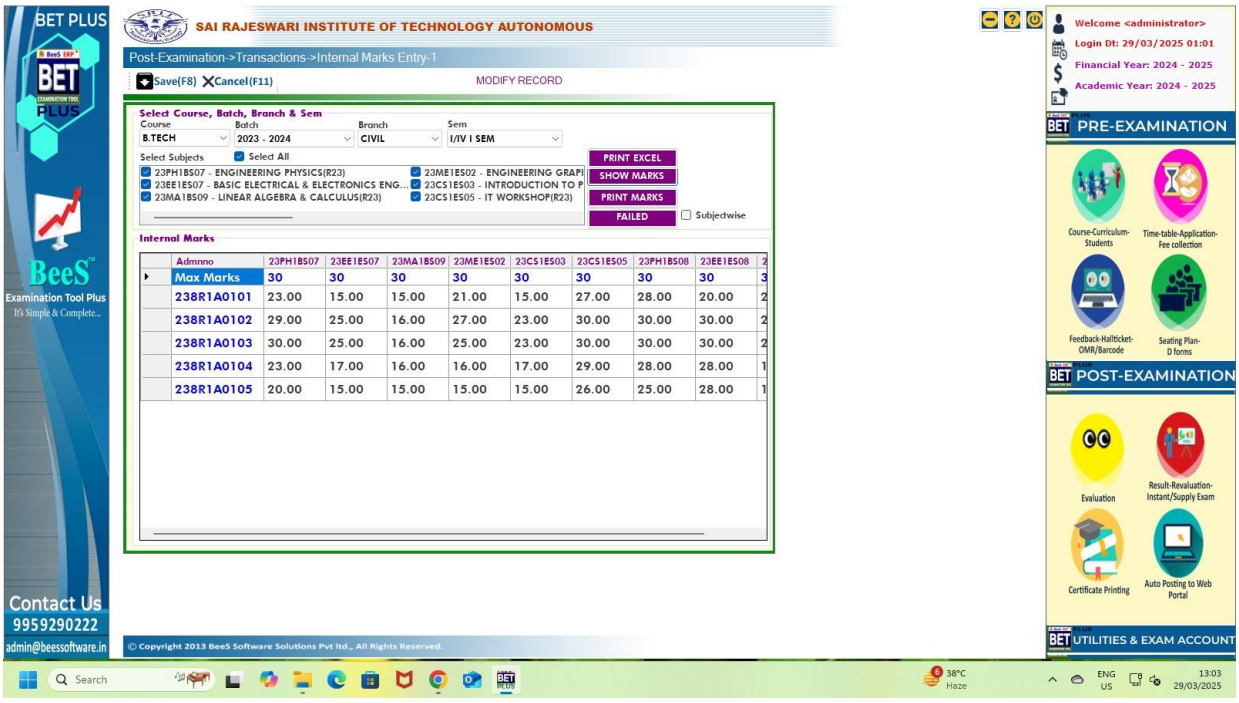
The end examination pattern for Engineering Graphics, shall consists of 5 questions, either/or type, of 14 marks each. There shall be no objective type questions in the end examination. However, the end examination pattern for other subjects related to design/drawing, multiple branches, etc is mentioned along with the syllabus.

f) There shall be no external examination for mandatory courses with zero credits. However, attendance shall be considered while calculating aggregate attendance and student shall be declared to have passed the mandatory course only when he/she secures 40% or more in the internal examinations. In case, the student fails, a re-examination shall be conducted for failed candidates for 30 marks satisfying the conditions mentioned in item 1 & 2 of the regulations.

g) The laboratory records and mid semester test papers shall be preserved for a minimum of 3 years in the respective institutions as per the University norms and shall be produced to the Committees of the University as and when the same are asked for.

IT -Integration in Examinations





Process to ensure questions from outcomes/learning levels perspective.

Each question in internal test is mapped with COs of each subject.

The mark gained by each student in each COs for each internal assessment component is taken into consideration for the calculation of CO-PO attainments.

Sample of Question Paper

SAI RAJESWARI INSTITUTE OF TECHNOLOGY:PRODDATUR
(AUTONOMOUS)
Accredited by NACC & NBA, Recognised by UGC under section 2(f).
B.Tech II Year I Semester (R23) MID-I Examinations-Sept- 2024

Class: II YEAR B.TECH I-SEM **Date:** 20/09/2024(AN)
Subject & Code: Material Science and Metallurgy & 23ME3PC02 **Time:** 90 Minutes
Branch: MECH **Max. Marks:** 15 Marks

Answer the Following Questions, **(3x5 = 15 Marks)**

	Questions	CO	BTM
1	a) Explain the primary types of Bonds in solids with neat sketches.	CO1	L2
	(OR)		
	b) How does grain size effect on the properties of alloys, also determine the grain size.	CO1	L1
2	a) Describe with a neat sketch of FCC crystal structure and calculate its packing factor, coordinate Number	CO1	L1
	(OR)		
	b) Describe the various imperfections in crystals and their effects on properties.	CO2	L1
3	a) Explain the structure and properties of white cast iron	CO2	L2
	(OR)		
	b) What is steel? What are the classifications of the steels?	CO2	L1

Evidence of COs coverage in Internal Assessment

All questions given in the internal tests cover all COs of that Course.

Material Science and Metallurgy & 23ME3PC02			
	Internal Test I	**Internal Test II**	**University Exam**
CO1	√		√
CO2	√		√
CO3		√	√
CO4		√	√
CO5		√	√

Quality of Assignments and its relevance to Cos

Writing assignment depends thinking and increases engagement with course material. Good writing assignments prompt the students to think more deeply about what they are learning. The Writing assignments can promote self-learning quality of students. Some assignments carry a complex problem nearer to reality that cannot be done in the classroom. The following procedure adopted to conduct the assignments during the course period.

- Course instructor gives the assignments in such a way to promote self-learning from various sources.
- All the assignment depends thinking and increases engagement with course material.
- Course instructor has evaluated the assignments and feedback is given to the students to improve their learning and also appreciate their efforts.
- All the assignment question are related to the CO s.

Material Science and Metallurgy & 23ME3PC02	
Cos	**Assignment**
CO1	√
CO2	√
CO3	√
CO4	√
CO5	√

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