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Sheriguda Village, Ibrahimpatnam Mandal, Ranga Reddy Dist. – 501 510

BACHELOR OF TECHNOLOGY ARTIFICIAL INTELLIGENCE & DATA SCIENCE

CHOICE BASED CREDIT SYSTEM (CBCS)

ACADEMIC REGULATIONS, COURSE STRUCTURE, EXAMINATION
PROCEDURE AND SYLLABI FOR I TO IV YEARS – I & II SEMESTERS
UNDER AUTONOMOUS STATUS FOR THE BATCHES ADMITTED FROM
THE ACADEMIC YEAR 2022 – 23

B.Tech. Regular Four Year Degree Programme (For the batches admitted from the academic year 2022–23)

B.Tech. (Lateral Entry Scheme)
(For the batches admitted from the academic year 2023 - 24)

Note: The regulations here under are subject to amendments as may be made by the Academic Council of the College from time to time. Any or all such amendments will be effective from such date and to such batches of candidates (includergoing ram) as may be decided by the Academic Co



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Vision of the Institute

To be a premier institution in engineering & technology and management for competency, values and social consciousness

Mission of the Institute

IM₁: Provide high quality academic programs, training activities and research facilities.

IM₂: Promote continuous industry – institute interaction aimed at promoting employability, entrepreneurship, leadership and research aptitude among stakeholders

IM₃: Contribute the economic and technological development of the region, state and Nation.



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Sheriguda Village, Ibrahimpatnam Mandal, Ranga Reddy Dist. – 501 510

VISION of the Department

To produce competent professionals recognized for excellence, innovation and societal relevance by impacting their knowledge of Artificial Intelligence and Data Science.

MISSION of the Department

- **DM 1:** To produce industry-ready professionals and leverage Artificial Intelligence and Data science innovative models for automation, effective decision-making, and competitive advantage.
- **DM 2:** To develop state-the-art of academic and infrastructural services with modern learning resources to produce self-sustainable professionals.
- **DM 3:** To inculcate the prominence of higher studies, research and entrepreneurship to pursue global standards.



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PROGRAM OUTCOMES (POs):

PO1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.		
PO2	Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.		
PO3	Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.		
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.		
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.		
P06	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.		
P07	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.		
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.		
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.		
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.		
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.		

PROGRAM SPECIFIC OUTCOMES (PSOs):

- PSO1 Adapt, contribute and innovate new technologies in the key domains of Artificial Intelligence & Data Science during higher studies / product development
- PSO2 To equip students with interdisciplinary skill sets to be able to build intelligent systems which in turn provides dynamic and promising careers in the global marketplace.
- PSO3 Utilize Artificial Intelligence and Data Science tools to provide innovative business solutions.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

- PEO I: Comply with the contemporary trends and best practices of industry and research standards of Artificial Intelligence and Data Science
- PEO II: Develop Artificial Intelligence and Data Science based solutions to address diverse needs of the community for improving the quality of life and environment.
- PEO III: To produce creative and technically strong engineers with research pioneering solutions to meet global challenges
- PEO IV: Inculcate values of professional ethics, social concerns, environment protection and life-long learning



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ACADEMIC REGULATIONS 2022 (BR22) FOR CHOICE BASED CREDIT SYSTEM (CBCS) B.TECH. DEGREE COURSES

(Applicable for Students admitted from the academic year 2022-2023)

PRELIMINARY DEFINITIONS AND NOMENCLATURES

- "Autonomous Institute / College" means an institute / college designated as autonomous institute / college by the UGC, New Delhi and JNTUH Statutes, 2014.
- "Academic Autonomy" means freedom to a College in all aspects of conducting its academic programs granted by the University for promoting excellence.
- *Commission" means University Grants Commission (UGC), New Delhi.
- * "AICTE" means All India Council for Technical Education.
- "University" means the Jawaharlal Nehru Technological University, Hyderabad.
- "College" means SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY, Hyderabad unless indicated otherwise by the context.
- * "Programme" means: Bachelor of Technology (B.Tech) degree programme
- "Branch" means specialization in a programme like B.Tech degree programme in Electronics and Communication Engineering, B.Tech degree programme in Computer Science and Engineering etc
- "Course" or "Subject" means a theory or practical subject, identified by its course number and course-title, which is normally studied in a semester. For example, R22MTH1111: Mathematics I, R22CSE1113: Programming for Problem Solving etc.
- T Tutorial, P Practical, D Drawing, L Theory, C Credits



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ACADEMIC REGULATIONS 2022 (BR22) FOR CHOICE BASED CREDIT SYSTEM (CBCS) B.TECH. DEGREE COURSES

(Applicable for Students admitted from the academic year 2022-2022)

1.0 Under-Graduate Degree Programme in Engineering & Technology (UGP in E&T)

Sri Indu College of Engineering & Technology (SICET) offers a 4-year (8 semesters) Bachelor of Technology (B.Tech.) degree programme, under Choice BasedCredit System (CBCS) with effect from the academic year 2022-23.

1.1 Courses of study

The following courses of study (Branches) are offered at present by the college with specialization in the B. Tech. Course:

SI. No.	Branch Code	Branch	
1	1	CIVIL ENGINEERING	
2	2	ELECTRICAL & ELECTRONICS ENGINEERING	
3	3	MECHANICAL ENGINEERING	
4	4	ELECTRONICS & COMMUNICATION ENGINEERING	
5	5	COMPUTER SCIENCE & ENGINEERING	
6	12	INFORMATION TECHNOLOGY	
7.	33	COMPUTER SCIENCE AND INFORMATION TECHNOLOGY	
8.	67	CSE (DATA SCIENCE)	
9.	66	CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)	
10.	62	CSE (CYBER SECURITY)	
11.	69	CSE – INTERNET OF THINGS (IoT)	
12.	72	ARTIFICIAL INTELLIGENCE & DATA SCIENCE	

2.0 Eligibility for Admission

- Admission to the undergraduate(UG) programme shall be made either on the basis of the merit rank obtained by the qualified student in entrance test conducted by the Telangana State Government (EAMCET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.
- 2.2 The medium of instructions for the entire undergraduate programme in Engineering & Technology will be English only.

3.0 B.Tech Program Structure

- 3.1 A student after securing admission shall complete the B.Tech. programme in a minimum period of four academic years (8 semesters), and a maximum period of eight academic years (16 semesters) starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Tech course. Each student shall secure 160 credits (with CGPA ≥ 5) required for the completion of the undergraduate programme and award of the B.Tech. degree.
- **3.2** UGC/ AICTE specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

3.2.1 Semester Scheme

Each undergraduate programme is of 4 academic years (8 semesters) with the academic year divided into two semesters of 22 weeks (90 instructional days) each and in each semester - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)' under Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) indicated by UGC, and curriculum/course structure suggested by AICTE are followed.

3.2.2 Credit Courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses or Tutorials.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses.

Courses like Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization lab are mandatory courses. These courses will not carry any credits.

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3.2.3 Subject Course Classification

All subjects/ courses offered for the undergraduate programme in E&T (B.Tech. degree programmes) are broadly classified as follows. The College has followed almost all the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
1		BS – Basic	Includes mathematics, physics and
I		Sciences	chemistry subjects
2	Foundation	ES - Engineering	Includes fundamental engineering
	Courses (FnC)	Sciences	subjects
		HS – Humanities	Includes subjects related to
3		and Social sciences	humanities, social sciences and
			management
	Core Courses	PC – Professional	Includes core subjects related to the
4	(CoC)	Core	parent discipline/ department/
	,		branch of Engineering.
5		PE – Professional	Includes core subjects related to the
5		Electives	parent discipline/ department/ branch of Engineering.
	Elective		Elective subjects which include inter-
6	Courses (E(C)	OE – Open	disciplinary subjects or subjects in
		Electives	an area outside the parent discipline/
			department/ branch of Engineering.
7	7	Project Work	B.Tech. project or UG project or UG
		In director / Training of	major project or Project Stage I & II
	Core Courses	Industry Training/	
		Internship/	Industry Training/Internable/
		Industry Oriented	Industry Training/ Internship/ Industry Oriented Mini-Project/ Mini-
8		Mini- project/ Mini- Project/ Skill	Project/ Skill Development Courses
		Development	Trojecti Okili Developillerit Courses
		Courses	
		Courses	Seminar/ Colloquium based on core
9		Seminar	contents related to parent discipline/
9		Seminar	department/ branch of Engineering.
10	Minor courses		
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)





4.0 Course Registration

- A student may be permitted to register for all the subjects/ courses in a semester as specified in the course structure with maximum additional subject(s)/course(s) limited to 6 Credits (any 2 elective subjects), based on **progress** and SGPA/ CGPA, and completion of the 'pre-requisites' as indicated for various subjects/ courses, in the department course structure and syllabus contents.
- 4.2 Choice for 'additional subjects/ courses', not more than any 2 elective subjects in any Semester, must be clearly indicated, which needs the specific approval and signature of the Faculty Advisor/Mentor/HOD.
- 4.3 If the student submits ambiguous choices or multiple options or erroneous entries during registration for the subject(s) / course(s) under a given/ specified course group/ category as listed in the course structure, only the first mentioned subject/ course in that category will be taken into consideration.
- 4.4 Subject/ course options exercised through registration are final and cannot be changed or inter-changed; further, alternate choices also will not be considered. However, if the subject/ course that has already been listed for registration by the Head of the Department in a semester could not be offered due to any inevitable or unexpected reasons, then the student shall be allowed to have alternate choice either for a new subject (subject to offering of such a subject), or for another existing subject (subject to availability of seats). Such alternate arrangements will be made by the Head of the Department, with due notification and time-framed schedule, within a week after the commencement of class-work for that semester.
- 4.5 Dropping of subjects/ courses may be permitted, only after obtaining prior approval from the faculty advisor/ counselor 'within a period of 15 days' from the beginning of the current semester.
- 4.6 Open Electives: The students have to choose three Open Electives (OE-I, II & III). However, the student can opt for an Open Elective subject offered by his own (parent) department, if the student has not registered and not studied that subject under any category (Professional Core, Professional Electives, Mandatory Courses etc.) offered by parent department in any semester. Open Elective subjects already studied should not repeat/should not match with any category (Professional Core, Professional Electives, Mandatory Courses etc.) of subjects even in the forthcoming semesters.
- 4.7 **Professional Electives:** The students have to choose six Professional Electives (PE-I to VI) from the list of professional electives given.



5.0 Subjects/ courses to be offered

- 5.1 A subject/ course may be offered to the students, **only if** a minimum of 15 students opt for it.
- 5.2 More than **one faculty member** may offer the **same subject** (lab/ practical may be included with the corresponding theory subject in the same semester) in any semester. However, selection of choice for students will be based on '**first come first serve** basis and CGPA criterion'.
- 5.3 If more entries for registration of a subject come into picture, then the Head of the Department concerned shall decide, whether or not to offer such a subject/course for **two(or multiple) sections**.
- 5.4 In case of options coming from students of other departments/ branches/ disciplines (not considering **open electives**), first **priority** shall be given to the student of the 'parent department'.

6.0 Attendance requirements:

- A student shall be eligible to appear for the semester end examinations, if the student acquires a minimum of 75% of attendance in aggregate of all the subjects/ courses (including attendance in mandatory courses like Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization Lab) for that semester. **Two periods** of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject.
- 6.2 Shortage of attendance in aggregate upto 10% (65% and above, and below 75%) in each semester may be condoned by the college academic committee on genuine and valid grounds, based on the student's representation with supporting evidence.
- 6.3 A stipulated fee shall be payable for condoning of shortage of attendance.
- 6.4 Shortage of attendance below 65% in aggregate shall in **NO** case be condoned.
- 6.5 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examinations of that semester. They get detained and their registration for that semester shall stand cancelled, including all academic credentials (internal marks etc.) of that semester. They will not be promoted to the next semester. They may seek re-registration for all those subjects registered in that semester in which the student is detained, by seeking re-admission into that semester as and when offered; if there are any professional electives and/ or open electives, the same may also be re-registered if offered. However, if those electives are not offered in later semesters, then alternate electives may be chosen from the same set of elective subjects offered under that category.
- 6.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.

7.0 Academic Requirements

The following academic requirements have to be satisfied, in addition to the attendancerequirements mentioned in Item No. 6.

- 7.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course, if student secures not less than 35% (14 marks out of 40 marks) in the internal examinations, not less than 35% (21 marks out of 60 marks) in the semester end examination, and a minimum of 40% (40 marks out of 100 marks) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of letter grades, this implies securing 'C' grade or above in that subject/ course.
- 7.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Real-time Research Project (or) Field Based Research Project (or) Industry Oriented Mini Project (or) Internship (or) Seminar, if the student secures not less than 40% marks (i.e. 40 out of 100 allotted marks) in each of them. The student is deemed to have failed, if he (i) does not submit a report on Industry Oriented Mini Project/Internship, or (ii) not make a presentation of the same before the evaluation committee as per schedule, or (iii) secures less than 40% marks in Real-time Research Project (or) Field Based Research Project (or) Industry Oriented Mini Project (or) Internship evaluations. A student may reappear once for each of the above evaluations, when they are scheduled again; if the student fails in such 'one reappearance' evaluation also, the student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

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7.3 **Promotion Rules**

S. No.	Promotion	Conditions to be fulfilled
1	First year first semester to first year second	Regular course of study of first year first semester.
2	First year second semester to Second	(i) Regular course of study of first year second semester.
	year first semester	(ii) Must have secured at least 20 credits out of 40 credits i.e., 50% credits up to first year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3.	Second year first semester to Second year second semester	Regular course of study of second year first semester.
4	Second year second semester to Third year	(i) Regular course of study of second year second semester.
	first semester	(ii) Must have secured at least 48 credits out of 80 credits i.e., 60% credits up to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Third year first semester to Third year second semester	Regular course of study of third year first semester.
6	Third year second semester to Fourth year first semester	 (i) Regular course of study of third year second semester. (ii) Must have secured at least 72 credits out of 120 credits i.e., 60% credits up to third year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
7.	Fourth year first semester to Fourth year second semester	Regular course of study of fourth year first semester.



- A student (i) shall register for all courses/subjects covering 160 credits as specified and listed in the course structure, (ii) fulfills all the attendance and academic requirements for 160 credits, (iii) earn all 160 credits by securing SGPA ≥ 5.0 (in each semester), and CGPA ≥ 5 (at the end of 8 semesters), (iv) passes all the mandatory courses, to successfully complete the undergraduate programme. The performance of the student in these 160 credits shall be considered for the calculation of the final CGPA (at the end of undergraduate programme), and shall be indicated in the grade card / marks memo of IV-year II semester.
- 7.5 If a student registers for 'extra subjects' (in the parent department or other departments/branches of Engg.) other than those listed subjects totaling to 160 credits as specified in the course structure of his department, the performances in those 'extra subjects' (although evaluated and graded using the same procedure as that of the required 160 credits) will not be considered while calculating the SGPA and CGPA. For such 'extra subjects' registered, percentage of marks and letter grade alone will be indicated in the grade card / marks memo as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations Items 6 and 7.1 7.4 above.
- 7.6 A student eligible to appear in the semester end examination for any subject/course, but absent from it or failed (thereby failing to secure 'C' grade or above) may reappear for that subject/course in the supplementary examination as and when conducted. In such cases, internal marks (CIE) assessed earlier for that subject/course will be carried over, and added to the marks to be obtained in the SEE supplementary examination for evaluating performance in that subject.
- 7.7 A student detained in a semester due to shortage of attendance may be readmitted in the same semester in the next academic year for fulfillment of academic requirements. The academic regulations under which a student has been re-admitted shall be applicable. Further, no grade allotments or SGPA/CGPA calculations will be done for the entire semester in which the student has been detained.
- 7.8 A student detained due to lack of credits, shall be promoted to the next academic year only after acquiring the required number of academic credits. The academic regulations under which the student has been readmitted shall be applicable to him.

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8.0 Evaluation - Distribution and Weightage of Marks

- 8.1 The performance of a student in every subject/course (including practicals and Project Stage I & II) will be evaluated for 100 marks each, with 40 marks allotted for CIE (Continuous Internal Evaluation) and 60 marks for SEE (Semester End-Examination).
- 8.2 In CIE, for theory subjects, during a semester, there shall be two mid-term examinations. Each M.id-Term examination consists of two parts i) Part A for 10 marks, ii) Part B for 20 marks with a total duration of 2 hours as follows:
 - 1. Mid Term Examination for 30 marks:
 - a. Part A: Objective/quiz paper for 10 marks.
 - b. Part B: Descriptive paper for 20 marks.

The objective/quiz paper is set with multiple choice, fill-in the blanks and match the following type of questions for a total of 10 marks. The descriptive paper shall contain 6 full questions out of which, the student has to answer 4 questions, each carrying 5 marks. The average of the two Mid Term Examinations shall be taken as the final marks for Mid Term Examination (for 30 marks).

The remaining 10 marks of Continuous Internal Evaluation are distributed as:

- 1. Assignment for 5 marks. (Average of 2 Assignments each for 5 marks)
- 2. Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned subject for 5 marks.

While the first mid-term examination shall be conducted on 50% of the syllabus, the second mid-term examination shall be conducted on the remaining 50% of the syllabus.

Five (5) marks are allocated for assignments (as specified by the subject teacher concerned). The first assignment should be submitted before the conduct of the first mid-term examination, and the second assignment should be submitted before the conduct of the second mid-term examination. The average of the two assignments shall be taken as the final marks for assignment (for 5 marks).

Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the subject concerned for 5 marks before II Mid-Term Examination.

• The Student, in each subject, shall have to earn 35% of marks (i.e. 14 marks out of 40 marks) in CIE, 35% of marks (i.e. 21 marks out of 60) in SEE and Over all 40% of marks (i.e. 40 marks out of 100 marks) both CIE and SEE marks put together.

The student is eligible to write Semester End Examination of the concerned subject, if the student scores ≥ 35% (14 marks) of 40 Continuous Internal Examination (CIE) marks.

In case, the student appears for Semester End Examination (SEE) of the concerned subject but not scored minimum 35% of CIE marks (14 marks out of 40 internal marks), his performance in that subject in SEE shall stand cancelled in spite of appearing the SEE.

There is NO Remedial Mid Test (RMT) for R22 regulations. The details of the end semester question paper pattern are as follows:

- **8.2.1** The semester end examinations (SEE), for theory subjects, will be conducted for 60 marks consisting of two parts viz. i) Part- A for 10 marks, ii) Part B for 50 marks.
 - Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
 - Part-B consists of five questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from each unit and may contain sub-questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.
 - The duration of Semester End Examination is 3 hours.
- **8.2.2.** For the subject, Computer Aided Engineering Graphics, the Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) evaluation pattern is same as for other theory subjects.
- 8.3 For practical subjects there shall be a Continuous Internal Evaluation (CIE) during the semester for 40 marks and 60 marks for semester end examination.

 Out of the 40 marksfor internal evaluation:
 - A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 10 marks
 - 2. **10 marks for viva-voce (**or) tutorial (or) case study (or) application (or) poster presentation of the course concerned.
 - 3. Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 10 marks.
 - 4. The remaining 10 marks are for Laboratory Report/Project and Presentation which consists of the Design (or) Software / Hardware Model Presentation (or) App Development (or) Prototype Presentation submission which shall be evaluated after completion of laboratory course and before semester enc practical examination.

The Semester End Examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the cluster / other colleges which will be decided by the examination branch of the college.

In the Semester End Examination held for 3 hours, total 60 marks are divided and allocated as shown below:

- 1. 10 marks for write-up
- 2. 15 for experiment/program
- 3. 15 for evaluation of results
- 4. 10 marks for presentation on another experiment/program in the same laboratory course and
- 5. 10 marks for viva-voce on concerned laboratory course

The Student, in each subject, shall have to earn 35% of marks (i.e. 14 marks out of 40 marks) in CIE, 35% of marks (i.e. 21 marks out of 60) in SEE and Over all 40% of marks (i.e. 40 marks out of 100 marks) both CIE and SEE marks put together. The student is eligible to write Semester End Examination of the concerned subject, if the student scores ≥ 35% (14 marks) of 40 Continuous Internal Examination (CIE) marks. In case, the student appears for Semester End Examination (SEE) of the concerned subject but not scored minimum 35% of CIE marks (14 marks out of 40 internal marks), his performance in that subject in SEE shall stand cancelled inspite of appearing the SEE.

- 8.4 The evaluation of courses having ONLY internal marks in I-Year I Semester and II- Year II Semester is as follows:
 - 1. I Year I Semester course (ex., Elements of CE/ME/EEE/ECE/CSE etc.): The internal evaluation is for 50 marks and it shall take place during I Mid-Term examination and II Mid-Term examination. The average marks of two Mid-Term examinations is the final for 50 marks. Student shall have to earn 40%, i.e 20 marks out of 50 marks from average of the two examinations. There shall be NO external evaluation. The student is deemed to have failed, if he (i) is absent as per schedule, or (ii) secures less than 40% marks in this course.

For CSE/IT and allied branches the Continuous Internal Evaluation (CIE) will be for 50 marks. Each Mid-Term examination consists of two parts i) Part – A for 20 marks, ii) Part – B for 20 marks with a total duration of 2 hours.

Part A: Objective/quiz paper is set with multiple choice, fill-in the blanks and match the following type of questions for a total of 20 marks. **Part B:** Descriptive paper shall contain 6 full questions out of which, the student has to answer 4 questions, each carrying 5 marks.

The remaining 10 marks of Continuous Internal Evaluation are for Assignment (5 marks) and Subject Viva-Voce/PPT/Poster Presentation/ Case Study (5 marks) and the evaluation pattern will remain same as for other theory subjects.

For all other branches, the Continuous Internal Evaluation (CIE) will be for 50 marks. Out of the 50 marks for internal evaluation:

- a) A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 10 marks
- b) 10 marks for viva-voce (or) tutorial (or) case study (or) application (or) poster presentation of the course concerned.
- c) Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 15 marks.
- d) The remaining 15 marks are for Laboratory Report/Project and Presentation, which consists of the Design (or) Software / Hardware Model Presentation (or) App Development (or) Prototype Presentation submission which shall be evaluated after completion of laboratory course and before semester end practical examination.
- 2. If Year II Semester Real-Time (or) Field-based Research Project course: The internal evaluation is for 50 marks and it shall take place during I Mid-Term examination and II Mid-Term examination. The average marks of two

- Mid-Term examinations is the final for 50 marks. Student shall have to earn 40%, i.e 20 marks out of 50 marks from average of the two examinations. There shall be NO external evaluation. The student is deemed to have failed, if he (i) does not submit a report on the Project, or (ii) does not make a presentation of the same before the internal committee as per schedule, or (ii) secures less than 40% marks in this course.
- 8.5 There shall be an Industry training (or) Internship (or) Industry oriented Miniproject (or) Skill Development Courses (or) Paper presentation in reputed journal (or) IndustryOriented Mini Project in collaboration with an industry of their specialization. Students shall register for this immediately after II-Year II Semester Examinations and pursue it during summer vacation/semester break & during III Year without effecting regular course work. Internship at reputed organization (or) Skill development courses (or) Paper presentation in reputed journal (or) Industry Oriented Mini Project shall be submitted in a report form and presented before the committee in III-year II semester before end semester examination. It shall be evaluated for 100 external marks. The committee consists of an External Examiner, Head of the Department, Supervisor of the Industry Oriented Mini Project (or) Internship etc, Internal Supervisor and a Senior Faculty Member of the Department. There shall be **NO internal marks** for Industry Training (or) Internship (or) Mini-Project (or) Skill Development Courses (or) Paper Presentation in reputed journal (or) Industry Oriented Mini Project.
- 8.6 The UG project shall be initiated at the end of the IV Year I Semester and the duration of the project work is one semester. The student must present Project Stage I during IV Year I Semester before II Mid examinations, in consultation with his Supervisor, the title, objective and plan of action of his Project work to the departmental committee for approval before commencement of IV Year II Semester. Only after obtaining the approval of the departmental committee, the student can start his project work.
- 8.7 UG project work shall be carried out in two stages: Project Stage I for approval of project before Mid-II examinations in IV Year I Semester and Project Stage II during IV Year II Semester. Student has to submit project work report at the end of IV Year II Semester. The project shall be evaluated for 100 marks before commencement of SEETheory examinations.
- 8.8 For Project Stage I, the departmental committee consisting of Head of the Department, project supervisor and a senior faculty member shall approve the project work to begin before II Mid-Term examination of IV Year I Semester. The student is deemed to be not eligible to register for the Project work, if he does not submit a reporton Project Stage I or does not make a presentation of the same before the evaluation committee as per schedule. A student who has failed may reappear once for the above evaluation, when it is scheduled again; if he fails in such 'one reappearance' evaluation also, he has to reappear for the same in the next subsequent semester, as and when it is scheduled.

8.9 For Project Stage – II, the external examiner shall evaluate the project work for 60 marks and the internal project committee shall evaluate it for 40 marks. Out of 40 internal marks, the departmental committee consisting of Head of the Department, Project Supervisor and a Senior Faculty Member shall evaluate the project work for 20 marks and Project Supervisor shall evaluate for 20 marks. The topics for Industry Oriented Mini Project/ Internship/SDC etc. and the main Project shall be different from the topic already taken. The student is deemed to have failed, if he (i) does not submit a report on the Project, or (ii) does not make a presentation of the same before the External Examiner as per schedule, or (iii) secures less than 40% marks in the sum total of the CIE and SEE taken together.

For conducting viva-voce of project, University selects an external examiner from the list of experts in the relevant branch submitted by the Principal of the College.

A student who has failed, may reappear once for the above evaluation, when it is scheduled again; if student fails in such 'one reappearance' evaluation also, he has to reappear for the same in the next subsequent semester, as and when it is scheduled.

- 8.10 A student shall be given only one time chance to re-register for a maximum of two subjects in a semester:
 - If the internal marks secured by a student in the Continuous Internal Evaluation marks for 40 (Sum of average of two mid-term examinations consisting of Objective & descriptive parts, Average of two Assignments & Subject Vivavoce/PPT/ Poster presentation/ Case Study on a topic in the concerned subject) are less than 35% and failed in those subjects.
 - A student must re-register for the failed subject(s) for 40 marks within four weeks of commencement of the classwork in next academic year.
 - In the event of the student taking this chance, his Continuous Internal Evaluation marks for 40 and Semester End Examination marks for 60 obtained in the previous attempt stand cancelled.
- 8.11 For mandatory courses of Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization lab, a student has to secure 40 marks out of 100 marks (i.e. 40% of the 100 marks allotted) in the Continuous Internal Evaluation for passing the subject/course. These marks should also be uploaded along with the internal marks of other subjects.
- 8.12 No marks or letter grades shall be allotted for mandatory/non-credit courses. Only Pass/Fail shall be indicated in Grade Card.

9.0 Grading Procedure

9.1 Grades will be awarded to indicate the performance of students in each Theory Subject, Laboratory/Practicals/ Industry-Oriented Mini Project/Internship/SDC and Project Stage. Based on the percentage of marks obtained (Continuous Internal Evaluation plus Semester End Examination, both taken together) as specified in item 8 above, a corresponding letter grade shall be given.

9.2 As a measure of the performance of a student, a 10-point absolute grading system using the following letter grades (as per UGC/AICTE guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject/Course (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
Greater than or equal to 90%	O (Outstanding)	10
80 and less than 90%	A ⁺ (Excellent)	9
70 and less than 80%	A (Very Good)	8
60 and less than 70%	B ⁺ (Good)	7
50 and less than 60%	B (Average)	6
40 and less than 50%	C (Pass)	5
Below 40%	F (FAIL)	0
Absent	Ab	0

- 9.3 A student who has obtained an 'F' grade in any subject shall be deemed to have 'failed' and is required to reappear as a 'supplementary student' in the semester end examination, as and when offered. In such cases, internal marks in those subjects will remain the same as those obtained earlier.
- 9.4 To a student who has not appeared for an examination in any subject, 'Ab' grade will be allocated in that subject, and he is deemed to have 'Failed'. A student will be required to reappear as a 'supplementary student' in the semester end examination, as and when offered next. In this case also, the internal marks in those subjects will remainthe same as those obtained earlier.
- 9.5 A letter grade does not indicate any specific percentage of marks secured by the student, but it indicates only the range of percentage of marks.
- 9.6 A student earns Grade Point (GP) in each subject/ course, on the basis of the letter grade secured in that subject/ course. The corresponding 'Credit Points' (CP) are computed by multiplying the grade point with credits for that particular subject/ course.

Credit Points (CP) = Grade Point (GP) x Credits For a course

9.7 A student passes the subject/ course only when GP ≥ 5 ('C' grade or above)

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9.8 The Semester Grade Point Average (SGPA) is calculated by dividing the sum of creditpoints (Σ CP) secured from all subjects/ courses registered in a semester, by the total number of credits registered during that semester. SGPA is rounded off to **two** decimalplaces. SGPA is thus computed as

SGPA =
$$\{\sum_{i=1}^{N} C_i G_i\} / \{\sum_{i=1}^{N} C_i\} \dots$$
 For each semester,

where 'i' is the subject indicator index (considering all subjects in a semester), 'N' is the no. of subjects '**registered'** for the semester (as specifically required and listed under the course structure of the parent department), C_i is the no. of credits allotted to the ith subject, and G_i represents the grade points (GP) corresponding to the letter gradeawarded for that ith subject.

9.9 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student in all semesters considered for registration. The CGPA is the ratio of the total credit points secured by a student in all registered courses (of 160) in all semesters, and the total number of credits registered in all the semesters. CGPA is rounded off to two decimal places. CGPA is thus computed from the I year II semesteronwards at the end of each semester as per the formula

CGPA =
$$\{\sum_{j=1}^{M} C_j G_j\} / \{\sum_{j=1}^{M} C_j\} ...$$
 for all S semesters registered (i.e., up to and inclusive of S semesters, $S \ge 2$),

where 'M' is the total no. of subjects (as specifically required and listed under the course structure of the parent department) the student has 'registered' i.e., from the 1st semester onwards up to and inclusive of the 8th semester, 'j' is the subject indicator index (takes into account all subjects from 1 to 8 semesters), C_j is the no. of credits allotted to the jth subject, and G_j represents the grade points (GP) corresponding to the letter grade awarded for that jth subject. After registration and completion of I year I semester, the SGPA of that semester itself may be taken as the CGPA, as there are no cumulative effects. Illustration of calculation of SGPA:

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	Α	8	$4 \times 8 = 32$
Course 2	4	0	10	4 x 10 = 40
Course 3	4	С	5	$4 \times 5 = 20$
Course 4	3	В	6	$3 \times 6 = 18$
Course 5	3	A+	9	$3 \times 9 = 27$
Course 6	3	С	5	$3 \times 5 = 15$
	21			152

SGPA = 152/21 = 7.24

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Illustration of Calculation of CGPA up to 3rd Semester:

	Course/	Credits	Letter	Corresponding	Credit
Semester	Subject Title	Allotted	Grade Secured	Grade Point (GP)	Points (CP)
	Course 1	3	А	8	24
	Course 2	3	0	10	30
l	Course 3	3	В	6	18
l	Course 4	4	А	8	32
I	Course 5	3	A+	9	27
	Course 6	4	С	5	20
II	Course 7	4	В	6	24
II	Course 8	4	Α	8	32
II	Course 9	3	С	5	15
II	Course 10	3	0	10	30
II	Course 11	3	B+	7	21
II	Course 12	4	В	6	24
II	Course 13	4	А	8	32
II	Course 14	3	0	10	30
III	Course 15	2	Α	8	16
III	Course 16	1	С	5	5
III	Course 17	4	0	10	40
III	Course 18	3	B+	7	21
III	Course 19	4	В	6	24
III	Course 20	4	Α	8	32
III	Course 21	3	B+	7	21
Tota	l Credits	69	Total C	redit Points	518

CGPA = 518/69 = 7.51

The calculation process of CGPA illustrated above will be followed for each subsequent semester until 8th semester. The CGPA obtained at the end of 8th semester will becomethe final CGPA secured for entire B.Tech. programme.

- 9.10 For merit ranking or comparison purposes or any other listing, **only** the '**rounded off**' values of the CGPAs will be used.
- 9.11 SGPA and CGPA of a semester will be mentioned in the semester Memorandum of Grades if all subjects of that semester are passed in first attempt. Otherwise the SGPA and CGPA shall be mentioned only on the Memorandum of Grades in which sitting he passed his last exam in that semester. However, mandatory courses will not be taken into consideration.

10.0 Passing Standards

10.1 A student shall be declared successful or 'passed' in a semester, if he secures a GP ≥ 5 ('C' grade or above) in every subject/course in that semester (i.e. when the student gets an SGPA ≥ 5.0 at the end of that particular semester); and he shall be declared successful or 'passed' in the entire undergraduate programme, only when gets a CGPA ≥ 5.00 ('C' grade or above) for the award of the degree as required.

10.2 After the completion of each semester, a grade card or grade sheet shall be issued to allthe registered students of that semester, indicating the letter grades and credits earned. It will show the details of the courses registered (course code, title, no. of credits, grade earned, etc.) and credits earned. There is NO exemption of credits in any case.

11.0 Declaration of results

- 11.1 Computation of SGPA and CGPA are done using the procedure listed in 9.6 to 9.9.
- 11.2 For final percentage of marks equivalent to the computed final CGPA, the following formula may be used.

% of Marks = $(final CGPA - 0.5) \times 10$

12.0 Award of Degree

- A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 160 credits (with CGPA ≥ 5.0), within 8 academic years from the date of commencement of the first academic year, shall be declared to have 'qualified' for the award of B.Tech. degree in the branch of Engineering selected at the time of admission.
- 12.2 A student who qualifies for the award of the degree as listed in item 12.1 shall be placed in the following classes.
- 12.3 A student with final CGPA (at the end of the undergraduate programme) > 8.00, and fulfilling the following conditions shall be placed in 'First Class with Distinction'. However, he
 - (i) Should have passed all the subjects/courses in 'First Appearance' within the first 4 academic years (or 8 sequential semesters) from the date of commencement of first year first semester.
 - (ii) Should not have been detained or prevented from writing the semester end examinations in any semester due to shortage of attendance or any other reason.

A student not fulfilling any of the above conditions with final CGPA > 8 shall be placed in 'First Class'.

- 12.4 Students with final CGPA (at the end of the undergraduate programme) ≥ 7.0 but < 8.00 shall be placed in 'First Class'.
- 12.5 Students with final CGPA (at the end of the undergraduate programme) ≥ 6.00 but < 7.00, shall be placed in 'Second Class'.
- All other students who qualify for the award of the degree (as per item 12.1), with final CGPA (at the end of the undergraduate programme) ≥ 5.00 but < 6, shall be placed in 'pass class'.
- 12.7 A student with final CGPA (at the end of the undergraduate programme) < 5.00 will not be eligible for the award of the degree.
- 12.8 Students fulfilling the conditions listed under item 12.3 alone will be eligible for awardof '**Gold Medal**'.
- 12.9 Award of 2-Year B.Tech. Diploma Certificate

- 1. A student is awarded 2-Year UG Diploma Certificate in the concerned engineering branch on completion of all the academic requirements and earned all the 80 credits (within 4 years from the date of admission) upto B.Tech. II Year II Semester, if the student want to exit the 4-Year B.Tech. program and requests for the 2 -Year B. Tech. (UG) Diploma Certificate.
- 2. The student once opted and awarded 2-Year UG Diploma Certificate, the student will be permitted to join in B. Tech. III Year I Semester and continue for completion of remaining years of study for 4-Year B. Tech. Degree ONLY in the next academic year along with next batch students. However, if any student wishes to continue the study after opting for exit, he/she should register for the subjects/courses in III Year I Semester before commencement of classwork for that semester.
- 3. The students, who exit the 4-Year B. Tech. program after II Year of study and wish to re-join the B.Tech. program, must submit the 2 -Year B. Tech. (UG) Diploma Certificate awarded to him, subject to the eligibility for completion of Course/Degree.
- 4. A student may be permitted to take one year break after completion of II Year II Semester or B. Tech. III Year II Semester (with college permission through the principal of the college well in advance) and can re-enter the course in next Academic Year in the college and complete the course on fulfilling all the academic credentials within a stipulated duration i.e. double the duration of the course (Ex. within 8 Years for 4-Year program).



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13.0 Withholding of results

13.1 If the student has not paid the fees to the college at any stage, or has dues pending due to any reason whatsoever, or if any case of indiscipline is pending, the result of the student may be withheld, and the student will not be allowed to go into the next highersemester. The award or issue of the degree may also be withheld in such cases.

14.0 Transitory Regulations

A. For students detained due to shortage of attendance:

- 1. A Student who has been detained in I year of R18 Regulations due to lack of attendance, shall be permitted to join I year I Semester of R22 Regulations and he is required to complete the study of B.Tech programme within the stipulated period of eight academic years from the date of first admission in IYear.
- 2. A student who has been detained in any semester of II, III and IV years of R18 regulations for want of attendance, shall be permitted to join the corresponding semester of R22 Regulations and is required to complete the study of B.Tech. within the stipulated period of eight academic years from the date of first admission in I Year. The R22 Academic Regulations under which a student has been readmitted shall be applicable to that student from that semester. See rule (C) for further Transitory Regulations.

B. For students detained due to shortage of credits:

1. A student of R18 Regulations who has been detained due to lack of credits, shallbe promoted to the next semester of R22 Regulations only after acquiring the required number of credits as per the corresponding regulations of his/her first admission. The total credits required are 160 including both R18 & R22 regulations. The student is required to complete the study of B.Tech. within the stipulated period of eight academic years from the year of first admission. The R22 Academic Regulations are applicable to a student from the year of readmission. See rule (C) for further Transitory Regulations.

C. For readmitted students in R22 Regulations:

- 1. A student who has failed in any subject under any regulation has to pass those subjects in the same regulations.
- 2. The maximum credits that a student acquires for the award of degree, shall be the sum of the total number of credits secured in all the regulations of his/her study including R22 Regulations. There is NO exemption of credits in any case.
- 3. If a student is readmitted to R22 Regulations and has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in R22 Regulations will be substituted by another subject to be suggested by the college.

Note: If a student readmitted to R22 Regulations and has not studied any subjects/topics in his/her earlier regulations of study which is prerequisite for further subjects in R22 Regulations, the College Principal concerned shall conduct remedial classes to cover those subjects/topics for the benefit of the students.

15.0 Student Transfers

- 15.1 There shall be no branch transfers after the completion of admission process.
- There shall be no transfers from one college/stream to another within the constituent colleges and units of Jawaharlal Nehru Technological University Hyderabad.
- 15.3 The students seeking transfer to colleges affiliated to JNTUH from various other Universities/institutions have to pass the failed subjects which are equivalent to the subjects of JNTUH, and also pass the subjects of JNTUH which the students have not studied at the earlier institution. Further, though the students have passed some of the subjects at the earlier institutions, if the same subjects are prescribed in different semesters of JNTUH, the students have to study those subjects in JNTUH in spite of the fact that those subjects are repeated.
- The transferred students from other Universities/Institutions to JNTUH affiliated colleges who are on rolls are to be provided one chance to write the CBT (for internal marks) in the **equivalent subject(s)** as per the clearance letter issued by the University.
- The autonomous affiliated colleges have to provide one chance to write the internal examinations in the equivalent subject(s) to the students transferred from other universities/ institutions to JNTUH autonomous affiliated colleges who are on rolls, asper the clearance (equivalence) letter issued by the University.

16.0 Scope

The academic regulations should be read as a whole, for the purpose of any interpretation.

In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Vice-Chancellor is final.

The college may change or amend the academic regulations, course structure or syllabi at any time, and the changes or amendments made shall be applicable to all students with effect from the dates notified by the college authorities.

Where the words "he", "him", "his", occur in the regulations, they include "she", "her", "hers".







(An Autonomous Institution)
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ACADEMIC REGULATIONS FOR B.TECH (LATERAL ENTRY SCHEME) FROMTHE AY 2023-24

1. Eligibility for the award of B.Tech Degree (LES)

The LES students after securing admission shall pursue a course of study for not less than three academic years and not more than six academic years.

- 2. The student shall register for 120 credits and secure 120 credits with CGPA ≥ 5 from II year to IV-year B.Tech. programme (LES) for the award of B.Tech. degree.
- 3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Tech.
- **4.** The attendance requirements of B. Tech. (Regular) shall be applicable to B.Tech. (LES).

5. Promotion rule

S. No	Promotion	Conditions to be fulfilled
1	Second year first semester to second year second semester	Regular course of study of second yearfirst semester.
2	Second year second semester tothird year first semester	 Regular course of study of secondyear second semester.
		ii. Must have secured at least 24 creditsout of 40 credits i.e., 60% credits up to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Third year first semester to thirdyear second semester	Regular course of study of third yearfirst semester.

4	Third year second semester to fourth year	 Regular course of study of third year second semester.
	first semester	ii. Must have secured at least 48 credits out of 80 credits i.e., 60% credits up to third year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Fourth year first	Regular course of study of fourth yearfirst
	semester to fourthyear second semester	semester.

- 6. All the other regulations as applicable to B. Tech. 4-year degree course (Regular)will hold good for B. Tech. (Lateral Entry Scheme).
- 7. LES students are not eligible for 2-Year B. Tech. Diploma Certificate.





Malpractices Rules Disciplinary Action For / Improper Conduct in Examinations

	Nature of Malpractices/Improperconduct	Punishment
	If the student:	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which student is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any student or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any otherform of material relevant to the subject of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The hall ticket of the student is to be cancelled and sent to the college.
3.	Impersonates any other student in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. The performance of the original student who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall notbe allowed to appear for examinations of the remaining subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all college examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered againsthim.

4.	Smuggles in the answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all college examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in lettersto the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6.	Refuses to obey the orders of the chief superintendent/assistant — superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of anyinjury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The students also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking awayanswer script or intentionally tears off the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred for two consecutive semesters from class work and all college examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
8.	Possesses any lethal weapon or firearmin the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of

		the subjects of that semester/year. The student is also debarred andforfeits the seat.
9.	If student of the college, who is not a student for the particular examination orany person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6to 8.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred andforfeits the seat. Person(s) who do not belong to the college will be handed over to the police and, a police case will be
10.	Comes in a drunken condition to the examination hall.	registered against them. Expulsion from the examination hall andcancellation of the performance in that subject and all other subjects the student has already appeared for including practical examinations and project work
	Copying detected on the basis of internal	and shall not be permitted for the remaining examinations of the subjects of that semester/year. Cancellation of the performance in that subject and all other subjects the student has appeared for
11.	evidence, such as, during valuation or during special scrutiny.	including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the college for further action to award a suitable punishment.	

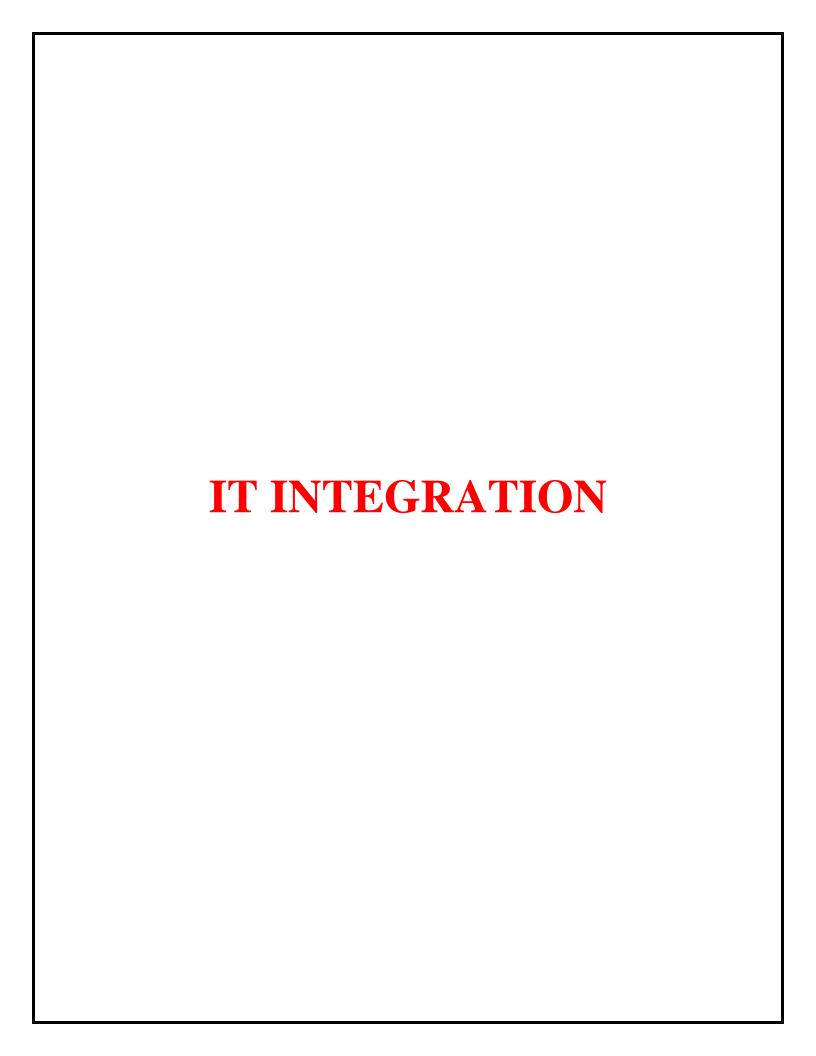
Malpractices identified by squad or special invigilators

- 1. Punishments to the students as per the above guidelines.
- 2. Punishment for Institutions: (if the squad reports that the college is also involved inencouraging malpractices)
 - a. A show-cause notice shall be issued to the college.
 - b. Impose a suitable fine on the college.
 - c. Shifting the examination center from one college to another college for a specific period of not less than one year.

* * * * *



Sri Indu College of Engineering and Technology
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IT Integration in Evaluation Process

Purpose:

Plans the process of evaluation		
$\hfill \square$ Review the annual performance of the students.		
$\hfill \square$ Make recommendations for the next academic year		
☐ Evaluate the performance of the faculty		

Post Evaluation Procedure Stages:		
OMR Scanning		
ADDMEN I PAGE		
Uploading The Bundle		
Verifying Every Profile		
Exporting The Data		
Conversion of OMR Codes into Excel		
Processing Of Result		
Moderation Procedure		
RECOUNTING/ REVALUATION (RC/RV)		
PROCEDURE FOR RECOUNTING		
PROCEDURE FOR REVALUATION		
PROCEDURE FOR CHALLENGE VALUATION		
Applying for Recounting:		
Model Announcement of Recounting Result		
Declaration of Result:		





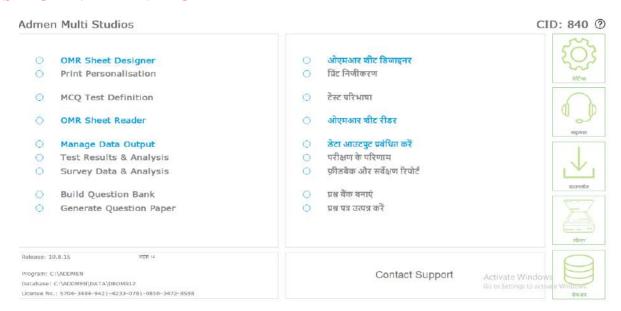
SCANNED OMR's:

After valuation and scrutiny being done, the OMR's will be scanned for further processing.

The scanning will take place using the software "SCANDALL PRO". The scanned images will be stored for next stages of Result Processing.



STAGE 1:ADMEN PAGE



The Admin Software comes with security which helps us to convert OMR images to excel sheets. This process undergoes certain steps.

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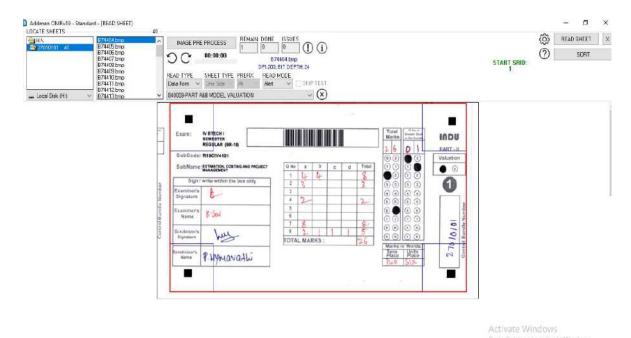
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Brahimpatnem(M), R.R.Dist.

STEP 1: UPLOADING THE BUNDLE

The files containing the OMR images will be first uploading to get converted into excel. The "ADMEN SOFTWARE" verifies the picked up values of marks and Sl.no against the respective image.



STEP 2: -EXPORTING OF IMAGES:

The next step is to Export the Excel file. The Exported file name will be the same as "BUNDLE NUMBER".

Then the bundle number will be added to extracted Excel file

STEP 3: OPENING EXCEL SHEET:

After the Excel file gets imported the related file gets opened in an excel sheet.

STEP 4:-GENERATED EXCEL SHEET

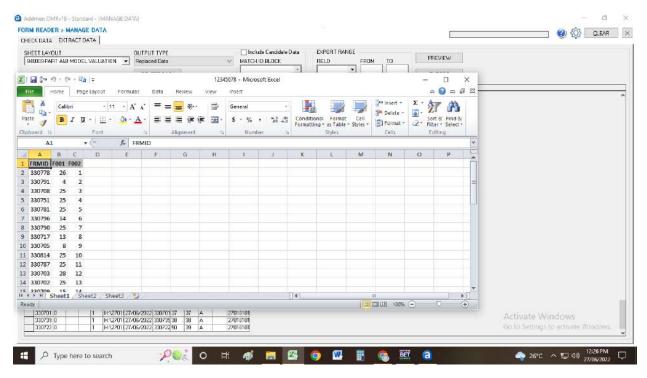
The generated Excel file has to be renamed with respective "BUNDLE NUMBER".

PRINCIPAL

Sri Indu College of Engineering and Technology

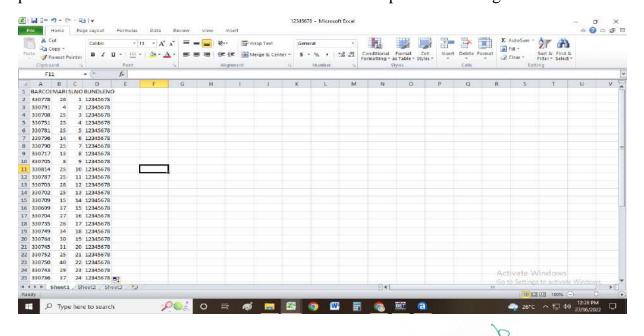
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Brahimpatnem(M), R.R.Dist.



STEP 5:--GENERATED EXCEL SHEET WITH BUNDLE NUMBER:

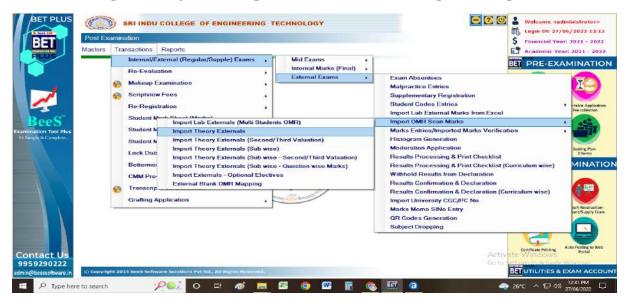
Header part of the Excel sheet must be replaced with "CODE, MARKS, SL.NO, BUNDLE NUMBER" to the top row and store the file as same as the Bundle number picked. The extracted excel files will be stored in the present working folder.



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Brahimpatnem(M), R.R.Dist.

STEP 6:UPLAODING EXCEL FILES

The Excel files are to be uploaded in the "BEES SOFTWARE" in the "Post-Examination Section". The processing will take place a while and comes up with output.



STEP 7: FINAL PROCESSING

The final output contains the options as follows,

- a) NO SCANNED:- This is the one where software hasn't identifed the hall ticket numbers of the students.
- b) CODES NOT MATCHING:- This is the one where the software picks the hall ticket numbers whose codes are not complete/alphanumeric entries.

All the issues must be sorted out so that the "NO SCANNED & CODES NOT MATCHING" columns becomes empty.

C) ABSENTEES ENTERED IN D-FORM:- All the Absentees need to be finalised.

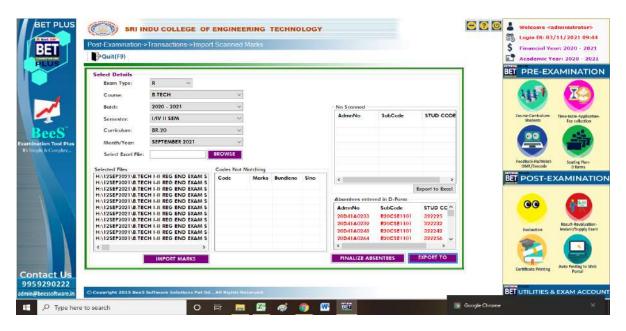


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Recounting of marks in the Answer Scripts:

Students are permitted to apply through the Principals of respective colleges within 15 days from the date of publication of results for recounting of marks in theory subjects of the end examination by paying the prescribed fee. The students will be informed about changes in marks, if any, through the respective principals along with the corrected marks memos.

Rector Chairman

DE Member & Convener

DAP Member

Principal, JNTUCEH Member

Principals of three Affiliated

College to JNTU, i.e. one from Members

each region (AU, OU & SVU)





4. The Administrative Officer of the College assists the DEAN, Controller of Examination and Additional Controller of examination in over-all administration of Examination branch and looks after the issue of examination notifications, time-tables, marks memos, consolidated marks memos, Provisional certificates, migration certificates, duplicate marks memos, revised marks memos due to changes, if any during recounting of marks in answer scripts etc. Further, the Administrative Officer of the College looks after the purchase of examinations stationery, equipment, furniture etc. and all works connected to Autonomous Annexe.

5. The Administrative Officer of the College looks after all the finance matters connected to examinations branch and maintains all accounts. The cheques that are received towards examination fees, condonation of attendance, recounting of marks etc. are credited in the Bank by the Accounts section and reconciles the accounts in respect of bank transactions towards the challans issued by bank for the fees paid for various certificates etc.

Further, the Account section reimburses the expenditure incurred by Autonomous Annex for conducting the College End Examinations towards Paper Setting, Paper Valuation and Invigilation. In addition it will process the bills for payment for purchases made by the Autonomous Annex.

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Sri Indu College of Engineering and Yechnology
(Vill): SHERIGHDA-501 580,
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Ph: 95-8414224166, 224177

Head Office Telefax Numbers: 08414-224177 / 040-24020175, www.sriindugroup.org

A meeting with the following members was conducted in the Chambers of the Chairman at 11.30 am on 6th March 2013 to finalize the **Procedure for Recounting and Challenge Revaluation of End Examination Answer Scripts** in Sri Indu College of Engineering & Technology (An Autonomous Institution under JNTUH)

Members Present:

Sri R Venkat Rao,

Dr P Mallesham,

Dr A Rama Krishna Rao,

Prof. K Ashok Babu,

Dr GV\$N Prasad,

Dr P Bala Subrahmanyam

Sri L Satyanarayana

Chairman

Principal & Convenor

Dean, Academic, & Evaluation

Head, ECE

Head, CSE

Controller of Examinations

Administrative Officer

Resolutions:

➤ It is resolved to accept Recounting for all the End Examination conducted in the College both for UG & PG Programmes. A fee of Rs 500 for subject has to be collected in cash/DD for Recounting. The Recounting has to be conducted as per the enclosed approved norms.

- ➤ It is resolved to accept Revaluation, after recounting, for all the End Examination conducted in the College both for UG & PG Programmes. A fee of Rs 5000/- for subject has to be collected in cash/DD for Revaluation. The Revaluation has to be conducted as per the enclosed approved norms.
- ➤ It is also resolved to accept Challenge valuation from the Candidates, after Recounting/Revaluation result. In such cases, a fee of Rs 10000/- for subject has to be collected in cash/DD for Challenge Valuation. The Challenge Valuation has to be conducted as per the enclosed approved norms.
- It is resolved to obtain the approval of the College Academic Council by placing the above resolutions and also the procedure for recounting, revaluation and challenge valuation approved in this meeting.



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(Vill): SHEMBUDA-501 540,
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Submitted to the Principal, SICET (Autonomous):

As you are aware the SICET attained Autonomous under JNTUH in 2012. After attaining the autonomous status, the College has established 'Autonomous Annexe' under the guidance of a DEAN and entrusted the task of conducting all the examinations, for both UG & PG Programmes, and also the responsibility of declaring the results.

Since the Autonomous College has not finalized the procedure for recounting, revaluation and Challenge valuation of End Examination Answer Scripts, a draft **Procedure for Recounting, Revaluation and Challenge Valuation of End Examination Answer Scripts** is sent to you for consideration and approval. The proposed fee for recounting and revaluation may be finalized and a formal letter from the Principal may be addressed to the Dean giving details of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for recounting/revaluation. After receiving the official directions from the Principal, the recounting, revaluation and challenge valuation; procedure will be initiated by the Autonomous Annex as per the approved norms by the Chairman and Academic Council of the Autonomous College.

As the Marks Memos have to be printed after finalization of results, I request that a meeting be conducted with the Chairman at an early date to finalize the **Procedure for Recounting, Revaluation and Challenge Valuation of End Examination Answer Scripts** and proper directions may be given to Autonomous Annexe in an official format.



Sri Indu College of Engineering and Technology
(Vill): 94890340A-501 540,
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Autonomous Annex

FEBRUARY 2022

Procedure for Recounting, Revaluation and Challenge Revaluation of End Examination Answer Scripts

PROCEDURE FOR RECOUNTING:

Phase –I:

- ➤ The candidates desirous to opt for recounting should apply in proper format to the Principal of SICET(Autonomous) by paying the prescribed fee of Rs 500/- per subject through cash .
- ➤ The Principal of SICET(Autonomous), after collecting the applications for recounting and the fee for recounting, has to address a formal letter to the Dean, Autonomous Annex, examination series-wise giving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for recounting.

Phase – II:

- After receiving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for recounting, the Controller of Examinations of the Autonomous Annex will first identify the code number of the individual subject opted for recounting and collect the Answer Scripts from the stores.
- After all the scripts are collected, the Controller of Examination of Autonomous Annex will invite the Heads of the Departments of the subjects concerned for recounting of the scripts.
- The Heads of the Departments not concerned to the subjects will recount the marks given by the original examiner Question-wise and check whether all questions are valued and whether the individual marks of each question are posted on the cover page of the Answer Script and they will also verify the total marks and the posting on the Award List. The Heads of the Departments have no authority to revalue the Questions. They merely recount the marks awarded by the original examiner. However, in case, a

question/questions is/are not valued by oversight, that question/questions may be brought to the notice of the Controller of Examinations and the Controller, in turn, will get such questions evaluated by the Head of the Department of the subject concerned. He has to strictly restrict the valuation only to the question/questions which were left unvalued by oversight and he has no right to alter the marks awarded by the original examiner for the other questions. In such cases, valuation of the leftover questions has to be done in a different colour.

- ➤ If any variation is detected from the published result, the recounted marks will be taken into account, irrespective of the fact that the candidate gets the benefit by getting higher mark or that the candidate is deprived of the benefit by getting less marks.
- ➤ If there is no variation, the candidates will be informed subject-wise as 'NO CHANGE'.

PROCEDURE FOR REVALUATION:

Phase-I

- ➤ The candidates can apply for revaluation of Answer scripts after recounting subject-wise by applying to the Principal, SICET(Autonomous) by paying the revaluation fee of Rs 3000/- subject-wise through cash.
- ➤ The Principal of SICET(Autonomous), after collecting the applications for revaluation and the fee for revaluation, has to address a formal letter to the Dean, Autonomous Annex, examination series-wise giving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for revaluation.

Phase – II:

- After receiving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for revaluation, the Controller of Examinations of the Autonomous Annex will first identify the code number of the individual subject opted for revaluation and collect the Answer Scripts from the stores.
- After all the scripts are collected, the Controller of Examination of Autonomous Annex will affix stickers on the marks awarded by the original examiner Question-wise

and also on the Cover Page of the Main Answer Script to hide the marks awarded by the original examiner.

- Next the Controller of Examination of Autonomous Annex will invite an external examiner of the subjects concerned from outside the College for revaluation of the scripts by paying Rs 200 per script.
- ➤ If the marks awarded by the second examiner are different from the marks awarded by the original examiner by 17% of the total marks (approximately with a variation 12 marks), the marks awarded by the second examiner will be taken as final mark, irrespective of the fact that the candidate gets the benefit by getting higher mark or that the candidate is deprived of the benefit by getting less marks.
- ➤ If the variation, in marks awarded by the second examiner, is less than 12 marks from the marks awarded by the original examiner, the marks awarded by the original examiner are final and the marks awarded by the second examiner will not be taken into consideration. In such cases, the candidates will be informed subject-wise as 'NO CHANGE'.

PROCEDURE FOR CHALLENGE VALUATION:

Phase-I

- ➤ The candidates can challenge the valuation of Answer scripts subject-wise, after the declaration of Recounting/Revaluation, by applying to the Principal, SICET(Autonomous) by paying the Challenge fee of Rs 5000/- subject-wise through Cash.
- ➤ The Principal of SICET(Autonomous), after collecting the applications for challenge valuation and the fee for challenge valuation, has to address a formal letter to the Dean, Autonomous Annex, examination series-wise giving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have opted for revaluation.

Phase - II:

After receiving the Name of the Course, Name of the Candidate, Title of the Subject and HTNo of the candidates who have of luation, the

Controller of Examinations of the Autonomous Annex will first identify the code number of the individual subject opted for challenge valuation and collect the Answer Scripts from the stores.

- After all the scripts are collected, the Controller of Examination of Autonomous Annex will affix stickers on the marks awarded by the revaluation examiner Questionwise and also on the Cover Page of the Main Answer Script to hide the marks awarded by the original/revaluation examiner.
- ➤ On receipt of the DD, the Photocopy of answer booklet shall be given to the candidate.
- Next the Controller of Examination of Autonomous Annex will get the paper evaluated by an external examiner of the subjects concerned from outside the College, in the presence of the candidate. The examiner for challenge valuation of the scripts is entitled for a remuneration of Rs 300 per script.
- ➤ If there is any change in marks (equal or above 17% of the maximum marks), the new marks will be awarded to the candidate. Otherwise, there will be no change in old marks obtained in revaluation.
- ➤ If the change in marks (equal or above 17% of the maximum marks) occurs, an amount of Rs 9000/- will be refunded to the candidate. Otherwise, the candidate will forfeit the total amount which he/she paid.

RECOUNTING/REVALUATION(RC/RV):

- 1. Recounting /Revaluation (RC/RV) applicability to each pragramme under UG or PG is defined in the respective Regulations.
- 2. Fees as decided by the Academic Council is applicable to RC/RV process for each subject.
- 3. ACE (Promulgation) should ensure the last date for applying for the RC/RV is declared while announcing the results of any programme in that academic year.
- 4. Students desirous of applying for RC/RV should apply in the format specified along with the required fees at Examination Branch.
 - 5. ACE (Examinations) should ensure the registration for this service.

- 6. ACE (Promulgation) after the due date should take the following reports for RC/RV separately.
- a. Student registration no, name, regulations, month of exam, semester, year, programme, regular/supple, subject code, name, external marks, date applied, money paid
- b. Regulations, month of exam, semester, year, programme, regular/supple, subject code, name, external marks, Script Bar Code, Bundle No, Script No.
- 7. Hand over 6(b) to ACE (Evaluation) to carry out RC/RV, who in turn should complete within six working days and hand over the Parts III s to ACE (Promulgation) who in turn get the part III s read into the database and declare results after due moderation/normalization if already applied to this subject.
- 8. ACE (Computerization) is to programme to satisfy 6 (a) and 6 (b) and any other bugs if arise.



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Dr P Mallesham,

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Dr GV\$N Prasad,

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Chairman

Principal & Convenor

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Controller of Examinations

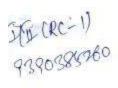
Administrative Officer

Resolutions:

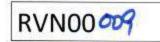
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- It is resolved to obtain the approval of the College Academic Council by placing the above resolutions and also the procedure for recounting, revaluation and challenge valuation approved in this meeting.

APPLICATION FOR RECOUNTING:







SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

Sheriguda(V), Ibrahimpatnam (M), Ranga Reddy Dist-501510

EXAMINATION BRANCH - AUTONOMOUS ANNEX

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REQUIRED RECOUNTING IN THE FOLLOWING SUBJECTS

SUBJECT TITLE	SUBJECT CODE	TOTAL AMOUNT
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		50020
	SUBJECT TITLE	SUBJECT TITLE SUBJECT CODE RISMININO

NOTE: 1. Rs 500/- (one thousand only) for Recounting of Each Subject 2. Rs 3000/- (Three thousand only) for Re-Valuation of Each Subject

Date:

Signature of the Student

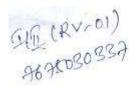
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FORWARDED TO CONTROLLER OF EXAMINATION (CE), SRI INDU AUTONOMOUS ANNEX

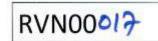
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PRINCIPAL
Sri Indu College of Engineering and Technology
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APPLICATION FOR REVALUATION:







SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY

Sheriguda(V), Jbrahimpatnam (M), Ranga Reddy Dist-501510

EXAMINATION BRANCH - AUTONOMOUS ANNEX

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REQUIRED RECOUNTING IN THE FOLLOWING SUBJECTS

S.No	SUBJECT TITLE	SUBJECT CODE	TOTAL AMOUNT
1	REE	R186661101	300000
2			0
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6			300000

NOTE: 1. Rs 500/- (Five hundred only) for Recounting of Each Subject 2. Rs 3000/- (Three thousand only) for Re-Valuation of Each Subject

Date: 27 |01 | 22

Signature of the Student

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FORWARDED TO CONTROLLER OF EXAMINATION (CE), SRLINDU AUTONOMOUS ANNEX

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Sheriguda Village, Ibrahimpatnam Mandal, Ranga Reddy Dist. – 501 510

BACHELOR OF TECHNOLOGY COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)

CHOICE BASED CREDIT SYSTEM (CBCS)

ACADEMIC REGULATIONS, COURSE STRUCTURE, EXAMINATION
PROCEDURE AND SYLLABI FOR I, II & III YEAR – I & II SEMESTERS
UNDER AUTONOMOUS STATUS FOR THE BATCHES ADMITTED FROM
THE ACADEMIC YEAR 2020 – 21

B.Tech. Regular Four Year Degree Programme (For the batches admitted from the academic year 2020–21)

B.Tech. (Lateral Entry Scheme) (For the batches admitted from the academic year 2021 - 22)

Note: The regulations here under are subject to amendments as may be made by the Academic Council of the College from time to time. Any or all such amendments will be effective from such date and to such batches of candidates (including those already undergoing the program) as may be decided by the Academic Council.



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Sheriguda Village, Ibrahimpatnam Mandal, Ranga Reddy Dist. – 501 510

Vision of the Institute

To be a premier institution in engineering & technology and management for competency, values and social consciousness

Mission of the Institute

IM₁: Provide high quality academic programs, training activities and research facilities.

IM₂: Promote continuous industry – institute interaction aimed at promoting employability, entrepreneurship, leadership and research aptitude among stakeholders

IM₃: Contribute the economic and technological development of the region, state and Nation.



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VISION of the Department

To be a technologically adaptive centre for computing by grooming the students as top notch professionals.

MISSION of the Department

DM1: To offer quality education in computing.

DM2: To provide an environment that enables overall development of all the stakeholders.

DM3: To impart training on emerging technologies like Data Analytics, Artificial Intelligence and Internet of Things.

DM4: To encourage participation of stakeholders in Research and Development.

PROGRAM OUTCOMES (POs):

PO1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
P06	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO1	To develop software projects using standard practices and suitable programming environment.
PSO2	To identify, formulate and solve the real life problems faced in the society, industry and other areas by applying the skills of the programming languages, networks and databases learned.
PSO3	To apply computer science knowledge in exploring and adopting latest technologies in various inter-disciplinary research activities.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

- **PEO1: Higher Studies:** Graduate with an ability to pursue higher studies and get employment in reputed institutions and organizations.
- **PEO2: Domain Knowledge:** Graduate with an ability to design and develop a product.
- **PEO3: Professional Career:** Graduate with excellence by multidisciplinary approa to achieve successful professional career.
- **PEO4:** Life Long Learning: Graduate with an ability to learn advanced skills to face professional competence through life long learning.



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ACADEMIC REGULATIONS 2020 (BR20) FOR CHOICE BASED CREDIT SYSTEM (CBCS) B.TECH. DEGREE COURSES

(Applicable for Students admitted from the academic year 2020-2021)

PRELIMINARY DEFINITIONS AND NOMENCLATURES

- "Autonomous Institute / College" means an institute / college designated as autonomous institute / college by the UGC, New Delhi and JNTUH Statutes, 2014.
- "Academic Autonomy" means freedom to a College in all aspects of conducting its academic programs granted by the University for promoting excellence.
- "Commission" means University Grants Commission (UGC), New Delhi.
- *AICTE" means All India Council for Technical Education.
- "University" means the Jawaharlal Nehru Technological University, Hyderabad.
- "College" means SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY, Hyderabad unless indicated otherwise by the context.
- "Programme" means: Bachelor of Technology (B.Tech) degree programme
- "Branch" means specialization in a programme like B.Tech degree programme in Electronics and Communication Engineering, B.Tech degree programme in Computer Science and Engineering etc
- "Course" or "Subject" means a theory or practical subject, identified by its course number and course-title, which is normally studied in a semester. For example, R20MTH1101: Mathematics I, R20CSE1101: Programming for Problem Solving etc.
- T Tutorial, P Practical, D Drawing, L Theory, C Credits



(An Autonomous Institution under UGC, New Delhi)

ACADEMIC REGULATIONS 2020 (BR20) FOR CHOICE BASED CREDIT SYSTEM (CBCS) B.TECH. DEGREE COURSES

(Applicable for Students admitted from the academic year 2020-2021)

1 Courses of study

The following courses of study (Branches) are offered at present by the college with specialization in the B. Tech. Course:

SI.	Branch	Branch
No.	Code	
1	1	CIVIL ENGINEERING
2	2	ELECTRICAL & ELECTRONICS ENGINEERING
3	3	MECHANICAL ENGINEERING
4	4	ELECTRONICS & COMMUNICATION ENGINEERING
5	5	COMPUTER SCIENCE & ENGINEERING
6	12	INFORMATION TECHNOLOGY
7.	33	COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
8.	67	CSE (DATA SCIENCE)
9.	66	CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)
10.	62	CSE (CYBER SECURITY)
11.	69	CSE – INTERNET OF THINGS (IoT)
12.	72	ARTIFICIAL INTELLIGENCE & DATA SCIENCE

1.1 Eligibility Criteria for Admission

The eligibility criteria for admission into First year of four year B.Tech. degree programme shall be as mentioned below:

- > The candidate shall be an Indian National.
- ➤ The candidate should have completed 16 years of age as on 31st December of the academic year for which the admissions are being conducted
- ➤ Passed either Intermediate Public Examination (I.P.E) conducted by the Board of Intermediate Education, Telangana State, with Mathematics, Physics and Chemistry as optional subjects or any equivalent examination recognized by Board of Intermediate Education, Telangana State
- Seats in each programme in the Institution are classified into category-A and Category-B as per the Government Orders (G.Os.)

1.1.1 Category–A Seats:

These seats will be filled through counseling as per the rank at the Common Entrance Test (EAMCET) conducted by the State Government and State Government G.Os. as per other admission criteria laid down in the G.Os.

1.1.2 Category-B Seats:

These seats will be filled by the institute as per the G.Os. Issued by State Government from time to time.

1.1.3 Category: Lateral Entry

The Candidates shall be admitted into the Third semester, based on the rank secured by the candidate at Engineering Common Entrance Test (ECET (FDH)) by the Convener, ECET

1.1.4 Medium of Instruction

The medium of instructions for the entire under graduate programme in Engineering & Technology will be English only.

2. B.Tech Program Structure

2.1 Semester Scheme

Each under graduate programme is of 4 academic years (8 semesters) with the academic year divided into two semesters of 22 weeks (≥ 90 instructional days) each, semester having – 'Continuous Internal Evaluation (CIE) 'AND' Semester End Examination (SEE)' under Choice Based Credit System (CBCS) indicated by UGC, and curriculum/course structure as suggested by JNTUH & AICTE are followed.

After eight academic years of course of study, the candidate is permitted to write only supplementary examinations for two more years so that within 10 years the students can complete the B.Tech Degree.

The students, who fail to fulfill all the academic requirements for the award of the degree within ten academic years from the year of their admission, shall forfeit their seats in B. Tech. course.

2.2 Credit Courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern.

- One credit for one hour/ week/ semester for theory/ lecture (L) courses or Tutorials.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses.
- Courses like Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization lab are mandatory courses. These courses will not carry any credits.

2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme (B.Tech. degree programmes) are broadly classified as follows. The University has followed almost all the guidelines issued by AICTE/UGC.

S. No.	Broad Course Classification	Course Group/ Category	Course Description
4		BS – Basic	Includes mathematics, physics and
1	Foundation Courses (FnC)	Sciences	chemistry subjects
2		ES - Engineering	Includes fundamental engineering
2		Sciences	subjects
	HS – Humanities Includes subjects related		Includes subjects related to
3		and Social	humanities, social sciences and
		sciences	management
	Core Courses	PC – Professional	Includes core subjects related to the
4	(CoC)	Core	parent discipline/ department/ branch
	, ,	DE D (: 1	of Engineering.
5		PE – Professional	Elective subjects which include
	Elective	Electives	interdisciplinary subjects or subjects
	Courses (E(C)	OE – Open	in an area outside the parent
6		Electives	discipline/ department/ branch of
			Engineering. B.Tech. project or UG project or UG
7		Project Work	major project or Project Stage I & II
			Industrial training/ Summer
0		Industrial training/	Internship/ Industrial Oriented Mini-
8	Core Courses	Mini- project	project/ Mini-project
			' ' '
		Seminar	Seminar/ Colloquium based on core
9		Seminar	contents related to parent discipline/
			department/ branch
10	Minor courses	-	of Engineering. 1 or 2 Credit courses
			(subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

3 Attendance Requirements:

- 3.1 A student shall be eligible to appear for the semester end examinations, if the student acquires a minimum of 75% of attendance in aggregate of all the subjects/courses (excluding attendance in mandatory courses like Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization lab) for that semester. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject.
- 3.2 Shortage of attendance in aggregate up to 10% (65% and above, and below 75%) in each semester may be condoned by the college academic committee on genuine and valid grounds, based on the student's representation with supporting evidence

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- 3.3 A stipulated fee shall be payable for condoning of shortage of attendance.
- 3.4 Shortage of attendance below 65% in aggregate shall in no case be condoned.
- 3.5 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examinations of that semester. They get detained and their registration for that semester shall stand cancelled. They will not be promoted to the next semester. They may seek re-registration for all those subjects registered in that semester in which the student is detained, by seeking re-admission into that semester as and when offered.
- 3.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.

4 Academic Requirements:

The following academic requirements have to be satisfied, in addition to the attendance requirements mentioned in item no.3.

- 4.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/ course, if student secures not less than 35% (25 marks out of 70 marks) in the semester end examination, and a minimum of 40% (40 marks out of 100 marks) in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of letter grades, this implies securing 'C' grade or above in that subject/ course.
- 4.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Industrial Oriented Mini Project/Summer Internship and seminar, if the student secures not less than 40% marks (i.e. 40 out of 100 allotted marks) in each of them. The student is deemed to have failed, if he (i) does not submit a report on Industrial Oriented Mini Project/Summer Internship, or does not make a presentation of the same before the evaluation committee as per schedule, or (ii) does not present the seminar as required in the IV year I Semester, or (iii) secures less than 40% marks in Industrial Oriented Mini Project/Summer Internship and seminar evaluations.

4.3 **Promotion Rules**

S. No.	Promotion	Conditions to be fulfilled
1	First year first semester to first year second semester	Regular course of study of first year first semester.
2	First year second semester to second year first semester	 i) Regular course of study of first year second semester. ii) Must have secured at least 18 credits out of 37 credits i.e., 50% credits upto first year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Second year first semester to second year second semester	Regular course of study of second year first semester.
4	Second year second semester to third year first	 i) Regular course of study of second year second semester.

	semester	ii) Must have secured at least 47 credits out of 79 credits i.e., 60% credits up to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Third year first semester to third year second semester	Regular course of study of third year first semester.
6	Third year second semester to fourth year first semester	 i) Regular course of study of third year second semester. ii) Must have secured at least 73 credits out of 123 credits i.e.,60% credits upto third year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
7	Fourth year first semester to fourth year second semester	Regular course of study of fourth year first semester.

- 4.4. A student (i) shall register for all courses/subjects covering 160 credits as specified and listed in the course structure, (ii) fulfills all the attendance and academic requirements for 160 credits, (iii) earn all 160 credits by securing SGPA ≥ 5.0 (in each semester), and CGPA (at the end of each successive semester) ≥ 5.0, (iv) passes all the mandatory courses, to successfully complete the under graduate programme. The performance of the student in these 160 credits shall be taken into account for the calculation of 'the final CGPA (at the end of under graduate programme), and shall be indicated in the grade card of IV year II semester.
- 4.5 A student eligible to appear in the semester end examination for any subject/ course, but absent from it or failed (thereby failing to secure 'C' grade or above) then no SGPA/CGPA will be printed on the respective Grade Card. However he may reappear for that subject/ course in the supplementary examination as and when conducted. In such cases, internal marks (CIE) assessed earlier for that subject/ course will be carried over, and added to the marks to be obtained in the SEE supplementary examination for evaluating performance in that subject.
- 4.6 A student detained in a semester due to shortage of attendance may be readmitted in the same semester in the next academic year for fulfillment of academic requirements. The academic regulations under which a student has been readmitted shall be applicable. However, no grade allotments or SGPA/CGPA calculations will be done for the entire semester in which the student has been detained.
- 4.7 A student detained due to lack of credits, shall be promoted to the next academic year only after acquiring the required academic credits. The academic regulations under which the student has been readmitted shall be applicable to him.
- 4.8 Supplementary examinations in the failed subject only for five times, in addition to one regular attempt (total six attempts). If the student is unable to clear the subject in six attempts altogether, the student shall appear for the examination in the same subjects with the revised syllabus i.e, the syllabus of equivalent subjects prevailing

for the regular students in that academic year. However if no subject with 'similar title is offered in the current regulations, the examination shall be conducted in the failed subject with the syllabus which the student studied during his/her regular course of study.

5 Evaluation - Distribution and Weightage of marks

The performance of a student in every subject/course (including Project Stage – I & II) will be evaluated for 100 marks each, with 30 marks allotted for CIE (Continuous Internal Evaluation) and 70 marks for SEE (Semester End-Examination).

5.1 For theory subjects, during a semester, there shall be two mid-term examinations conducted as per the academic calendar. Each mid examination is evaluated for 25 marks. First mid examination should be conducted for 1 to 2 ½ Units of syllabus and the second mid examination shall be conducted for 2 ½ to 5 Units of syllabus. The mid descriptive type exam paper consists of Section-A and Section-B.

Section-A [compulsory] consists of 5 short answer questions and each carries one mark.

Section-B consists of 6 questions out of which 4 are to be answered and each question carries 5 marks. The time duration of each mid examination is 90 minutes

Two assignments are to be given to students covering the syllabus of first mid and second Mid examinations and these assignments and Attendance are evaluated for 5 marks each. The first assignment shall be submitted before first mid examinations and second Assignment should be submitted before second mid examination.

At the end of the semester Internal Marks Maximum of 30 for the respective subjects are calculated as an average of the two midterm examinations

The semester end examinations (SEE) will be conducted for 70 marks consisting of two parts viz. i) Part- A for 20 marks, ii) Part - B for 50 marks.

Part-A is a compulsory question (numbered 1) consisting of **FIVE** short answer questions of four marks each and only one question to be set from a unit.

Part-B consists of five questions (numbered from 2 to 6) carrying 10 marks each. Each of these questions is from one unit and may contain subquestions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions.

5.2.1 For subjects like **Engineering Graphics/Engineering Drawing**, the SEE shall consist of five questions. For each question there will be an "either" "or" choice, which means that there will be two questions from each unit and the student should answer either of the two questions. There shall be no Part – A, and Part – B system.

- 5.2.2 For subjects like **Machine Drawing Practice/Machine Drawing**, the SEE shall be conducted for 70 marks consisting of two parts viz. (i) Part A for 30 marks. 3 out of 4 questions must be answered, (ii) Part B for 40 marks. Part B is compulsory.
- 5.2.3 For the Subject Estimation, Costing and Project Management, the SEE paper should consist of Part- A, Part-B and Part C.

Part – A: 1 out of 2 questions from Unit – I for 30 Marks,

Part – B: 1 out of 2 questions from Unit – II for 10 Marks

Part – C: 3 out of 5 questions from Units – III, IV, V for 30 Marks.

5.3 For practical subjects there shall be a continuous evaluation during the semester for 25 sectional marks and 50 marks for end examination. Out of the 25 marks for internal, day-to-day work in the laboratory shall be evaluated for 10 marks, and 10 marks for internal examination (two internal practical examinations will be conducted by the laboratory teacher concerned and the average of the two examinations will be taken into account) and 5 marks for laboratory record. The semester end examination shall be conducted with an external examiner and the laboratory teacher.

The external examiner shall be appointed by the Chief Superintendent in consultation with Dean/Controller of the Examination selects an external examiner from the list of experts in the relevant branch submitted by the HOD of the concern branch.

- For the subject having design and/or drawing, (such as engineering graphics, engineering drawing, machine drawing, machine drawing practice and estimation), the distribution shall be 30 marks for continuous internal evaluation (15 marks for day-to-day work and 15 marks for internal tests) and 70 marks for semester end examination. There shall be two internal tests in a semester and the average of the two shall be considered for the award of marks for internal tests.
- 5.5 For mandatory courses of Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization lab, a student has to secure 40 marks out of 100 marks (i.e. 40% of the marks allotted) in the continuous internal evaluation for passing the subject/course. No marks or letter grades shall be allotted for mandatory/non-credit courses. Only 'P'/'F' (Pass/Fail) shall be indicated in Grade Card.
- There shall be a Technical seminar presentation in IV year I semester. For the Technical seminar, the student shall collect the information on a specialized topic, prepare a technical report, and submit it to the department. It shall be evaluated by the departmental committee consisting of Head of the Department, seminar supervisor and a senior faculty member. The seminar report shall be evaluated for 100 internal marks. There shall be no semester end examination for the seminar.
- There shall be a Comprehensive Viva-Voce in IV year I semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of the Head of the Department and three Senior Faculty members of the Department. The Comprehensive Viva-Voce is aimed to assess the student's understanding in various subjects studied during the B.Tech. course

of study. The Comprehensive Viva-Voce is evaluated for 100 marks by the Committee. There will be no internal assessment for the Comprehensive viva-voce.

There shall be an Industrial Oriented Mini Project/Summer Internship, in collaboration with an industry of their specialization. Students will register for this immediately after III year II semester examinations and pursue it during summer vacation. Industrial Oriented Mini Project/Summer Internship shall be submitted in a report form and presented before the committee in IV year I semester. It shall be evaluated for 100 external marks.

The committee consists of an external examiner, Head of the Department, supervisor of the Industrial Oriented mini project/Summer Internship and a senior faculty member of the department. There shall be no internal marks for Industrial Oriented Mini Project/Summer Internship.

The Project work shall be started by the student in the beginning of the IV year II Semester. Out of a total of 200 marks for the project work, 50 marks shall be for Internal Evaluation and 150 marks for the Semester end Examination. The Semester end Examination (viva-voce) shall be conducted by a committee comprising of an external examiner, Head of the Department and the project supervisor. The evaluation of project work shall be conducted at the end of the IV year II Semester. The Internal Evaluation shall be on the basis of three seminars conducted during the IV year II semester for 20 marks by the committee consisting of Head of the Department, project supervisor and senior faculty member of the Department and for 30 marks by the supervisor of the project.

6 Credit Transfer System for MOOCs against Open / Professional Electives

The credit transfers of MOOC (Offered by SWAYAM/NPTEL / COURSERA etc.,) against Professional Electives (3-I,3-II) and Open electives (4-I, 4-II). These rules shall be applicable from Academic Year 2020-2021.

- 6.1 The student shall be required to submit an **Application form/ UNDERTAKING** for final approval for credit transfer of MOOC against open electivealong with the photocopy of MOOC completion certificate to chairperson through HOD before the allotment of Professional Electives (3-I, 3-II) and Open electives (4-I, 4-II) to the UG/PG students.
- 6.2 Only those registered MOOC courses are allowed for Credit Transfer which have credits more than or equal to the credits assigned to Open Elective course or the MOOC course should be of minimum 4/8/12 weeks duration. The student can also choose to register and complete more than one MOOC of same or different subject areas. However, the total number of weeks of all such individual courses should be more than or equal to 4/8/12 and should either belong to SWAYAM-NPTEL OR otherwise COURSERA. However, the candidates have to submit MOOC certificate/certificates to acquire the total number of credits offered against the elective subject.

	Credit Equivalence					
S. No. Course Duration Credit Equivalence for Transfer of Credit Equivalence						
	UG / PG					
1	4 Weeks	1Credit				
2	8 Weeks	2 Credits				
3	12 Weeks	3 Credits				

6.3 While transferring the credit from MOOC against open elective or professional elective, the student can opt following combinations of MOOC with the approval of coordinator and head of the department.

I) for 3 credits:

a) 12 Weeks (1) (or)

b) 8 Weeks (1) + 4 Weeks (1) (or)

c) 4 Weeks (1) + 4 Weeks (1) + 4 Weeks (1)

II) for 2 Credits:

a) 8 Weeks (1) (or)

b) 4 Weeks (1) + 4 Weeks (1)

- 6.4 Credit transfer shall not be allowed, if the contents and topic of the MOOC which is identical (20% overlapping is permissible) to any of the courses including Open Elective courses offered by any department for UG/PG students. It is the responsibility of the HOD to verify and recommend the courses requested by students is satisfying criteria 2.
- 6.5 Scores of the MOOC courses completed by the students on permitted platforms satisfying all above conditions are valid till **2** years. Only such MOOC courses/Scores will be considered for credit transfer.
- 6.6 If the MOOC course in which the student is interested does not fall in the parent discipline of the student and belongs to other Engineering disciplines existing at Basic Sciences/Humanities/Management, the Departmental coordinator will seek opinion of concerned HoD to verify the matching of content of MOOC with that of Open Elective courses/Professional Elective courses offered.
- 6.7 If the above mentioned conditions are fulfilled, the Departmental Interdisciplinary coordinator will recommend the case to coordinator, Interdisciplinary Courses for final approval and accordingly notify to the students. After getting approval from HoD, the student may register for the MOOC course he/she can be allowed for and complete the same as per the requirements for credit transfer.
- 6.8 The coordinator, Interdisciplinary Courses, will consolidate the lists from all departments and submit the same for final approval. Chairperson will submit the list to Principal / Chairman.the final list will be forwarded to the Controller of Examination for further action.
- 6.9 The department/institution is not responsible for the registration of online MOOC. The candidates have to pay for registration of such courses.
- 6.10 Alternatively for online MOOC courses, the candidates have a choice to opt a subject from open/professional electives. The credit grade point mapping framework could be awarded based on the Grading Procedure para 7.2

7 Grading procedure

7.1 Grades will be awarded to indicate the performance of students in each theory subject, Laboratory / Practical's, Seminar, Industry Oriented Mini Project, and Project Stage – I & II. Based on the percentage of marks obtained (Continuous Internal Evaluation plus Semester End Examination, both taken together) as specified in item 5 above, a corresponding letter grade shall be given.

7.2 As a measure of the performance of a student, a 10-point absolute grading system using the following letter grades (as per UGC/AICTE guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject/Course (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
Greater than or equal to 90%	O (Outstanding)	10
80% and less than 90%	A ⁺ (Excellent)	9
70% and less than 80%	A (Very Good)	8
60% and less than 70%	B ⁺ (Good)	7
50% and less than 60%	B (Average)	6
40% and less than 50%	C (Pass)	5
Below 40%	F(FAIL)	0
Absent	F(Ab)	0

- 7.3 A student who has obtained an 'F' grade in any subject shall be deemed to have 'failed' and is required to reappear as a 'supplementary student' in the semester end examination, as and when offered. In such cases, internal marks in those subjects will remain the same as those obtained earlier.
- 7.4 To a student who has not appeared for an examination in any subject, 'F(Ab)' grade will be allocated in that subject, and he is deemed to have 'failed'. A student will be required to reappear as a 'supplementary student' in the semester end examination, as and when offered next. In this case also, the internal marks in those subjects will remain the same as those obtained earlier.
- 7.5 A letter grade does not indicate any specific percentage of marks secured by the student, but it indicates only the range of percentage of marks.
- 7.6 A student earns grade point (GP) in each subject/ course, on the basis of the letter grade secured in that subject/ course. The corresponding 'Credit Points' (CP) are computed by multiplying the grade point with credits for that particular subject/ course.

Credit points (CP) = Grade Point (GP) x Credits For a course

- 7.7 A student passes the subject/ course only when $GP \ge 5$ ('C' grade or above)
- 7.8 The Semester Grade Point Average (SGPA) is calculated by dividing the sum of credit points (∑CP) secured from all subjects/ courses registered in a semester, by the total number of credits registered during that semester. SGPA is rounded off to two decimal places. SGPA is thus computed as

SGPA =
$$\{\sum_{i=1}^{N} C_i G_i\} / \{\sum_{i=1}^{N} C_i\} \dots$$
 For each semester,

where 'i' is the subject indicator index (takes into account all subjects in a semester), 'N' is the no. of subjects 'registered' for the semester (as specifically required and listed under the course structure of the parent department), C_i is the no. of credits allotted to the ith subject, and G_i represents the grade points (GP) corresponding to the letter grade awarded for that ith subject.

7.9 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student in all semesters considered for registration. The CGPA is the ratio of the total credit points secured by a student in all registered courses in all semesters, and the total number of credits registered in all the semesters. CGPA is rounded off to two decimal places. CGPA is thus computed from the I year II semester onwards at the end of each semester as per the formula

CGPA =
$$\left\{\sum_{j=1}^{M} C_{j} G_{j}\right\} / \left\{\sum_{j=1}^{M} C_{j}\right\} \dots$$
 for all S semesters registered

(i.e., up to and inclusive of S semesters, $S \ge 2$),

where 'M' is the total no. of subjects (as specifically required and listed under the course structure of the parent department) the student has 'registered' i.e., from the 1st semester onwards up to and inclusive of the 8th semester, 'j' is the subject indicator index (takes into account all subjects from 1 to 8 semesters), C_j is the no. of credits allotted to the j^{th} subject, and G_j represents the grade points (GP) corresponding to the letter grade awarded for that jth subject. After registration and completion of I year I semester, the SGPA of that semester itself may be taken as the CGPA, as there are no cumulative effects.

Illustration of calculation of SGPA:

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	O	10	4 x 10 = 40
Course 3	4	C	5	$4 \times 5 = 20$
Course 4	3	В	6	$3 \times 6 = 18$
Course 5	3	A+	9	$3 \times 9 = 27$
Course 6	3	C	5	$3 \times 5 = 15$
	21			152

SGPA = 152/21 = 7.24
Illustration of calculation of CGPA up to 3rd semester:

Semester	Course/Subject Title	Credits Allotted	Letter Grade Secured	Corresponding Grade Point (GP)	Credit Points (CP)
I	Course 1	3	A	8	24
I	Course 2	3	0	10	30
1	Course 3	3	В	6	18
I	Course 4	4	A	8	32
I	Course 5	3	A+	9	27
I	Course 6	4	С	5	20
П	Course 7	4	В	6	24
П	Course 8	4	A	8	32
П	Course 9	3	С	5	15
П	Course 10	3	0	10	30
П	Course 11	3	B+	7	21
П	Course 12	4	В	6	24
П	Course 13	4	A	8	32
П	Course 14	3	0	10	30
Ш	Course 15	2	A	8	16
Ш	Course 16	1	С	5	5
Ш	Course 17	4	0	10	40
Ш	Course 18	3	B+	7	21
Ш	Course 19	4	В	6	24
Ш	Course 20	4	A	8	32
ш	Course 21	3	B+	7	21
	Total Credits	69		Total Credit Points	518

CGPA = 518/69 = 7.51

- 7.10 Calculation process of CGPA will be followed for each subsequent semester until 8th semester. The CGPA obtained at the end of 8th semester will become the final CGPA secured for entire B.Tech. Programme.
- 7.11 For merit ranking or comparison purposes or any other listing, only the 'rounded off' values of the CGPAs will be used. SGPA and CGPA of a semester will be mentioned in the semester Memorandum of Grades if all subjects of that semester are passed in first attempt. Otherwise the SGPA and CGPA shall be mentioned only on the Memorandum of Grades in which sitting he passed his last exam in that semester.

8 Grace Marks

Examination branch adds the grace marks, not exceeding 0.15% marks of the course total marks to one or two subjects in which the student failed if adding these grace marks helps the student to

- i) Pass in these one or two failed subjects and
- ii) Get eligibility to receive the degree.

These grace marks shall be added only when the candidate submits an undertaking stating that "he/she will never apply for the supplementary exams conducted by the Institution in the future" to the Principal.

9 Passing standards

A student shall be declared successful or 'passed' in a semester, if he secures a GP \geq 5 ('C' grade or above) in every subject/course in that semester (i.e. when the student gets an SGPA \geq 5.00 at the end of that particular semester); and he shall be declared successful or 'passed' in the entire under graduate programme, only when gets a CGPA \geq 5.00 for the award of the degree as required.

After the completion of each semester, a grade card or grade sheet shall be issued to all the registered students of that semester, indicating the letter grades and credits earned. It will show the details of the courses registered (course code, title, no. of credits, grade earned, etc.), credits earned.

10 Declaration of results

Computation of SGPA and CGPA are done using the procedure listed in 6.6 to 6.9.

For final percentage of marks equivalent to the computed final CGPA, the following formula may be used.

% of Marks = $(final CGPA - 0.5) \times 10$

11 Award of degree

- 11.1 A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 160 credits (with CGPA ≥ 5.0), within 8 academic years from the date of commencement of the first academic year, shall be declared to have 'Qualified' for the award of B.Tech. degree in the chosen branch of Engineering selected at the time of admission.
- 11.2 A student who qualifies for the award of the degree as listed in item 10.1 shall be placed in the following classes.
- 11.3 A student with final CGPA (at the end of the under graduate programme) ≥ 8.00, and fulfilling the following conditions shall be placed in 'First Class with Distinction'. However, he
 - A. Should have passed all the subjects/courses in 'first appearance' within the first 4 academic years (or 8 sequential semesters) from the date of commencement of first year first semester.
 - B. Should have secured a CGPA ≥ 8.00, at the end of each of the 8 sequential semesters, starting from I year I semester onwards.
 - C. Should not have been detained or prevented from writing the semester end examinations in any semester due to shortage of attendance or any other reason.

A student not fulfilling any of the above conditions with final CGPA ≥ 8 shall be placed in 'First Class'.

- 11.4 Students with final CGPA (at the end of the under graduate programme) ≥ 6.50 but < 8.00 shall be placed in 'First Class'.
- 11.5 Students with final CGPA (at the end of the under graduate programme) ≥ 5.50 but < 6.50, shall be placed in 'Second Class'.
- 11.6 All other students who qualify for the award of the degree (as per item 10.1), with final CGPA (at the end of the under graduate programme) ≥ 5.00 but < 5.50, shall be placed in 'Pass Class'.
- 11.7 A student with final CGPA (at the end of the under graduate programme) < 5.00 will not be eligible for the award of the degree.

12 Withholding of Results

If the student has not paid the fees to the University at any stage, or has dues pending due to any reason whatsoever, or if any case of indiscipline is pending, the result of the student may be withheld, and the student will not be allowed to go into the next higher semester. The award or issue of the degree may also be withheld in such cases.

13. Transitory Regulations

Students who have discontinued or have been detained for want of attendance or any other academic requirements, may be considered for readmission as and when they become eligible. They have to take up Equivalent subjects, as substitute subject in place of repetition of subjects as decided by the Institute Academic Committee.

- **14.** There shall be **no branch transfers** after the completion of admission process.
- 15. The decision of the Institute Academic Committee will be final in respect of equivalent subjects for those students who are transferred from other colleges. The procedure for permitting students to transfer from other colleges will be decided by the principal / Institute Academic Committee keeping the Government Rules concerned in view.

16. TERMINATION FROM THE PROGRAMME

The admission of a student to the programme may be terminated and the student is asked to leave the college in the following circumstances:

- i. The student fails to satisfy the requirements of the programme within the maximum period stipulated for that programme.
- ii. The student fails to satisfy the norms of discipline specified by the institute from time to time.

17. CURRICULUM

- i. For each programme being offered by the Institute, a Board of Studies (BOS) is constituted in accordance with AICTE / UGC / JNTUH statutes.
- ii. The BOS for a programme is completely responsible for designing the curriculum once in three years for that programme.

18. GRIEVANCES REDRESSAL COMMITTEE

"Grievances and Redressal Committee" (General) constituted by the principal shall deal with all grievances pertaining to the academic / administrative / disciplinary matters. The composition of the complaints cum redressal committee shall be:

Headed by Senior Faculty member

Heads of all departments

A senior lady staff member from each department (if available)

The committee constituted shall submit a report to the principal of the college, the penalty to be imposed. The Principal upon receipt of the report from the committee shall, after giving an opportunity of being heard to the person complained against, submit the case with the committee's recommendation to the Governing Body of the college. The Governing Body shall confirm with or without modification the penalty recommended after duly following the prescribed procedure.

19. MALPRACTICE PREVENTION COMMITTEE

A malpractice prevention committee shall be constituted to examine and punish the students who does malpractice / behaves indiscipline in examinations. The committee shall consist of:

Principal.

Subject expert of which the subject belongs to.

Head of the department of which the student belongs to.

The invigilator concerned.

In-charge Examination branch of the college.

The committee constituted shall conduct the meeting on the same day of examination or latest by next working day to the incidence and punish the student as per the guidelines prescribed by the JNTUH/SICET from time to time.

Any action on the part of candidate at the examination like trying to get undue advantage in the performance at examinations or trying to help another, or derive the same through unfair means is punishable according to the provisions contained hereunder. The involvement of the Staff, who are in charge of conducting examinations, valuing examination papers and preparing / keeping records of documents relating to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and recommended for award of appropriate punishment after thorough enquiry.

20. STUDENT'S FEEDBACK

It is necessary for the Colleges to obtain feedback from students on their course work and various academic activities conducted. For this purpose, suitable feedback forms shall be devised by the College and the feedback obtained from the students regularly in confidence, by administering the feedback form in print or on-line in electronic form.

The feedback received from the students shall be discussed at various levels of decision making at the College and the changes/ improvements, if any, suggested shall be given due consideration for implementation.

21. CONDUCT AND DISCIPLINE

- i. Each student shall conduct himself / herself in a manner befitting his / her association with SICET.
- ii. He / she is expected not to indulge in any activity, which is likely to bring disrepute to the college.
- iii. He / she should show due respect and courtesy to the teachers, administrators, officers and employees of the college and maintain cordial relationships with fellow students.
- iv. Lack of courtesy and decorum unbecoming of a student (both inside and outside the college), willful damage or removal of Institute's property or belongings of fellow students, disturbing others in their studies, adoption of unfair means during examinations, breach of rules and regulations of the Institute, noisy and unruly behaviour and similar other undesirable activities shall constitute violation of code of conduct for the student.
- V. Ragging in any form is strictly prohibited and is considered a serious offence. It will lead to the expulsion of the offender from the college.

- vi. Violation of code of conduct shall invite disciplinary action which may include punishment such as reprimand, disciplinary probation, debarring from the examination, withdrawal of placement services, withholding of grades / degrees, cancellation of registration, etc., and even expulsion from the college.
- vii. Principal, based on the reports of the warden of Institute hostel, can reprimand, impose fine or take any other suitable measures against an inmate who violates either the code of conduct or rules and regulations pertaining to college hostel.
- viii. A student may be denied the award of degree / certificate even though he / she has satisfactorily completed all the academic requirements if the student is found guilty of offences warranting such an action.
- ix. Attendance is not given to the student during the suspension period.

22. Other Issues

The quality and standard of engineering professionals are closely linked with the level of the technical education system. As it is now recognized that these features are essential to develop the intellectual skills and knowledge of these professionals for being able to contribute to the society through productive and satisfying careers as *innovators*, *decision makers and/or leaders* in the global economy of the 21st century, it becomes necessary that certain improvements are introduced at different stages of their education system. These include:

- a) Selective admission of students to a programme, so that merit and aptitude for the chosen technical branch or specialization are given due consideration.
- b) Faculty recruitment and orientation, so that qualified teachers trained in good teaching methods, technical leadership and student's motivation are available.
- c) Instructional/Laboratory facilities and related physical infrastructure, so that they are adequate and are at the contemporary level.
- d) Access to good library resources and Information & Communication Technology (ICT) facilities, to develop the student's *mind* effectively.

These requirements make it necessary for the College to introduce improvements like:

- a) Teaching-learning process on modern lines, to provide *Add-On* Courses for *audit*/credit in a number of peripheral areas useful for student's self development.
- b) Life-long learning opportunities for faculty, students and alumni, to facilitate their dynamic interaction with the society, industries and the world of work.
- c) Generous use of ICT and other modern technologies in everyday activities.

23. General

- i. Where the words "he", "him", "his", occur in the regulations, they include "she", "her", "hers".
- ii. The academic regulations should be read as a whole for the purpose of any interpretation.
- iii. In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal is final.
- iv. In the case of any discrepancy/ambiguity/doubt arises in the above rules and regulations, the decision of the Principal shall be final.
- v. The College may change or amend any or all of the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students concerned with effect from the dates notified by the College.

24. Academic Regulations for B.Tech. (Lateral Entry Scheme)

(Applicable for students admitted from the academic year 2021-2022)

- 24.1 i. A student shall register for all 123 credits and secure 123 credits with CGPA ≥ 5 from II year to IV year B.Tech. Programme (LES) for the award of B.Tech. degree.
 - ii. A student who fails to fulfill the requirement for the award of the degree in six academic years from the year of their admission, shall forfeit their seat in B.Tech. programme and their admission stands cancelled.
 - iii. The same attendance regulations are adopted as that of B.Tech. Four year degree course.

24.2 Promotion Rule

S.No.	Promotion	Conditions to be fulfilled
1	Second year first semester to second year second semester	Regular course of study of second year first semester.
2	Second year second semester to third year first semester	 iii) Regular course of study of second year second semester. iv) Must have secured at least 21 credits out of 42 credits i.e., 50% credits up to second year second semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Third year first semester to third year second semester	Regular course of study of third year first semester.
4	Third year second semester to fourth year first semester	iii) Regular course of study of third year second semester.iv) Must have secured at least 51 credits out of 86 credits i.e.,60% credits upto third year second semester from all the relevant regular and supplementary

		examinations, whether the student takes those examinations or not.
5	Fourth year first semester	Regular course of study of fourth year first
	to fourth year second	semester.
	semester	

24.3 All the other regulations as applicable to B.Tech. 4 - year degree course (Regular) will hold good for B.Tech. (Leteral Entry Scheme)

	MALPRACTICES RULES DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS			
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.		
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.		
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.		
3.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate, who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.		
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.		
5.	Uses objectionable, abusive or offensive language in the answer paper or in	Cancellation of the performance in that subject.		
	. ,			

	letters to the examiners or writes to the examiner requesting him to award pass marks.	
6.	Refuses to obey the orders of the Chief Superintendent/Asst. — Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-incharge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the

		subjects of that semester/year.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action to award suitable punishment.	

Note: Students are advised to read the above regulations thoroughly. Ignorance with regards to the regulations cannot be construed as an excuse.



