



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad.

[Formerly RVR Institute of Engineering & Technology]

Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S – 501510.

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Mechanism of Internal Assessment is Transparent and Robust in terms of Frequency and Mode

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by State Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

ACADEMIC REGULATIONS FOR B.TECH. REGULAR STUDENTS

WITH EFFECT FROM

ACADEMIC YEAR 2018-19 (R-18)

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

Jawaharlal Nehru Technological University Hyderabad (JNTUH) offers a 4-year (8 semesters) **Bachelor of Technology (B.Tech.)** degree programme, under Choice Based Credit System (CBCS) at its non-autonomous constituent and affiliated colleges with effect from the academic year 2018-19.

2.0 Eligibility for admission

2.1 Admission to the under graduate (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 under graduate programme in Engineering & Technology will be **English** only.

3.0 B.Tech. Programme 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 under graduate 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 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, each

semester having - ‘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 as 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.

3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in E&T (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
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects
2		ES - Engineering Sciences	Includes fundamental engineering subjects
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline/ department/ branch of Engineering.
5	Elective Courses (ElC)	PE – Professional Electives	Includes elective subjects related to the parent discipline/ department/ branch of Engineering.
6		OE – Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the parent discipline/ department/ branch of Engineering.
7	Core Courses	Project Work	B.Tech. project or UG project or UG major project or Project Stage I & II
8		Industrial training/	Industrial training/ Summer Internship/

		Mini- project	Industrial Oriented Mini-project/ Mini-project
9		Seminar	Seminar/ Colloquium based on core contents related to parent discipline/ department/ branch of Engineering.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

4.0 Course registration

- 4.1 A ‘faculty advisor or counselor’ shall be assigned to a group of 20 students, who will advise the students about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites ‘registration forms’ from students before the beginning of the semester through ‘on-line registration’, ensuring ‘date and time stamping’. The on-line registration requests for any ‘current semester’ shall be **completed before the commencement of SEEs (Semester End Examinations) of the ‘preceding semester’**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the ‘**written approval**’ from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.4 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 4 credits, 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.
- 4.5 Choice for ‘**additional subjects/ courses**’ must be clearly indicated, which needs the specific approval and signature of the faculty advisor/ counselor.
- 4.6 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** 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.
- 4.7 Subject/ course options exercised through **on-line** 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 unforeseen 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 the **first week** after the commencement of class-work for that semester.

- 4.8** 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.
- 4.9** **Open electives:** The students have to choose three open electives (OE-I, II & III) from the list of open electives given. However, the student cannot opt for an open elective subject offered by his own (parent) department, if it is already listed under any category of the subjects offered by parent department in any semester.
- 4.10** **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 typical section (or class) strength for each semester shall be 60.
- 5.2** A subject/ course may be offered to the students, **only if** a minimum of 20 students (1/3 of the section strength) opt for it. The maximum strength of a section is limited to 80 (60 + 1/3 of the section strength).
- 5.3** 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' (i.e. the first focus shall be on early **on-line entry** from the student for registration in that semester, and the second focus, if needed, will be on CGPA of the student).
- 5.4** 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**.
- 5.5** 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:**

- 6.1** 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. **This attendance should also be included in the fortnightly upload of attendance to the University.**

The attendance of Mandatory Non-Credit courses should be uploaded separately to the University.

- 6.2** 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.
- 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. 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 attendance requirements 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% (26 marks out of 75 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 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.

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.

7.3 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 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 first semester	(i) Regular course of study of second year second 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 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.

- 7.4 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.
- 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 taken into account 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 as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations 6 and 7.1 – 7.4 above.
- 7.6 A student eligible to appear in the end semester 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 re-admitted 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.
- 7.8 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.
- 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 25 marks allotted for CIE (Continuous Internal Evaluation) and 75 marks for SEE (Semester End-Examination).
- 8.2 For theory subjects, during a semester, there shall be two mid-term examinations. Each mid-term examination consists of one objective paper, one descriptive paper and one assignment. The objective paper and the descriptive paper shall be for 10 marks each with a total duration of 1 hour 20 minutes (20 minutes for objective and 60 minutes for descriptive paper). The objective paper is set with 20 multiple choice, fill-

in the blanks and matching type of questions for a total of 10 marks. The descriptive paper shall contain 4 full questions out of which, the student has to answer 2 questions, each carrying 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 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 total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each student in Continuous Internal Evaluation. If any student is absent from any subject of a mid-term examination, an on-line test will be conducted for him by the University. The details of the end semester question paper pattern are as follows:

8.2.1 The end semester examinations will be conducted for 75 marks consisting of two parts viz. i) **Part- A** for 25 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question consisting of ten sub-questions. The first five sub-questions are from each unit and carry 2 marks each. The next five sub-questions are one from each unit and carry 3 marks each.
- 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 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.

8.2.2 For subjects like **Engineering Graphics/Engineering Drawing** there shall be five questions in the semester end examination. 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.

8.2.3 For subjects like **Machine Drawing Practice/Machine Drawing**, the distribution shall be 25 marks for continuous internal evaluation (15 marks for day-to-day work and 10 marks for internal tests) and 75 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. SEE will be conducted for 75 marks consisting of two parts viz. (i) Part – A for 30 marks, (ii) Part – B for 45 marks. Part – B is compulsory. Choice may be given in Part – A.

8.2.4 For the Subject **Estimation, Costing and Project Management**, the semester end examination paper should consist of Part- A, Part-B and Part C. Part – A consists of two questions in detailed estimation of buildings out of which one question must be answered. Part – B consists of two questions in estimation of steel and earthwork out of which one question must be answered. Part – C consists of five questions in the

remaining units out of which three should be answered. Weightage for Part – A is 40%, Part-B is 20% and Part C - 40%.

- 8.2.5** For subjects **Structural Engineering – I & II (RCC & STEEL)**, the end semester examination will be conducted for 75 marks consisting of 2 parts viz. (i) Part – A for 15 marks and, (i) Part – B for 60 marks. Part – A is a compulsory question consisting of ten sub-questions. The first five sub-questions are from each unit relating to design theory and codal provisions and carry 2 marks each. The next five sub-questions are from each unit and carry 1 mark each. Part – B consists of 5 questions (numbered 2 to 6) carrying 10 marks each. Each of these questions is from one unit and may contain sub-questions. For each question there is either or choice, which means that there will be two questions from each unit and the student should answer either of the two questions.
- 8.3** For practical subjects there shall be a continuous internal evaluation during the semester for 25 marks and 75 marks for semester end examination. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned. The semester end examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the clusters of colleges which are decided by the examination branch of the University.
- 8.4** 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 25 marks for continuous internal evaluation (15 marks for day-to-day work and 10 marks for internal tests) and 75 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.
- 8.5** 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.
- 8.6** There shall be a seminar presentation in IV year I semester. For the 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.

8.7 UG project work shall be carried out in two stages: Project Stage – I during IV Year I Semester, Project Stage – II during IV Year II Semester. Each stage will be evaluated for 100 marks. Student has to submit project work report at the end of each semester. First report includes project work carried out in IV Year I semester and second report includes project work carried out in IV Year I & II Semesters. SEE for both project stages shall be completed before the commencement of SEE Theory examinations.

8.8 For Project Stage – I, the departmental committee consisting of Head of the Department, project supervisor and a senior faculty member shall evaluate the project work for 75 marks and project supervisor shall evaluate for 25 marks. The student is deemed to have failed, if he (i) does not submit a report on Project Stage - I or does not make a presentation of the same before the evaluation committee as per schedule, or (ii) secures less than 40% marks in the sum total of the CIE and SEE taken together.

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 75 marks and the project supervisor shall evaluate it for 25 marks. The topics for industrial oriented mini project, seminar and Project Stage – I shall be different from one another. The student is deemed to have failed, if he (i) does not submit a report on Project Stage - II, or does not make a presentation of the same before the external examiner as per schedule, or (ii) secures less than 40% marks in the sum total of the CIE and SEE taken together.

For conducting viva-voce of project stage – II, 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 The laboratory marks and the internal marks awarded by the college are subject to scrutiny and scaling by the University wherever necessary. In such cases, the internal and laboratory marks awarded by the college will be referred to a committee. The committee will arrive at a scaling factor and the marks will be scaled accordingly. The recommendations of the committee are final and binding. The laboratory records and internal test papers shall be preserved in the respective institutions as per the University rules and produced before the committees of the University as and when asked for.

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 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, 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 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 remain the 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)**

9.8 The Semester Grade Point Average (SGPA) is calculated by dividing the sum of credit points (ΣCP) 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

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

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 i^{th} subject, and G_i represents the grade points (GP) corresponding to the letter grade awarded for that i^{th} 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 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

$$\text{CGPA} = \{ \sum_{j=1}^M C_j G_j \} / \{ \sum_{j=1}^M C_j \} \dots \text{for all S semesters registered}$$

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

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 j^{th} 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 x 8 = 32
Course 2	4	O	10	4 x 10 = 40
Course 3	4	C	5	4 x 5 = 20
Course 4	3	B	6	3 x 6 = 18
Course 5	3	A+	9	3 x 9 = 27
Course 6	3	C	5	3 x 5 = 15
	21			152

$$\text{SGPA} = 152/21 = 7.24$$

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	O	10	30
I	Course 3	3	B	6	18
I	Course 4	4	A	8	32
I	Course 5	3	A+	9	27
I	Course 6	4	C	5	20
II	Course 7	4	B	6	24
II	Course 8	4	A	8	32
II	Course 9	3	C	5	15
II	Course 10	3	O	10	30
II	Course 11	3	B+	7	21
II	Course 12	4	B	6	24
II	Course 13	4	A	8	32
II	Course 14	3	O	10	30
III	Course 15	2	A	8	16
III	Course 16	1	C	5	5
III	Course 17	4	O	10	40
III	Course 18	3	B+	7	21
III	Course 19	4	B	6	24
III	Course 20	4	A	8	32
III	Course 21	3	B+	7	21
	Total Credits	69		Total Credit Points	518

$$\text{CGPA} = 518/69 = 7.51$$

The above illustrated 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.

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 For calculations listed in regulations 9.6 to 9.9, performance in failed subjects/ courses (securing **F** grade) will also be taken into account, and the credits of such subjects/ courses will also be included in the multiplications and summations. After passing the failed subject(s) newly secured letter grades will be taken into account for calculation of SGPA and CGPA. However, mandatory courses will not be taken into consideration.

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.

10.0 Passing standards

10.1 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.

10.2 After the completion of each semester, a grade card or grade sheet (or transcript) 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.

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.

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

12.0 Award of degree

12.1 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 $CGPA \geq 5.0$), 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.

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 under graduate 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 have secured a CGPA ≥ 8.00 , at the end of each of the 8 sequential semesters, starting from I year I semester onwards.
- (iii) Should not have been detained or prevented from writing the end semester 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 under graduate programme) ≥ 6.50 but < 8.00 shall be placed in '**first class**'.

12.5 Students with final CGPA (at the end of the under graduate programme) ≥ 5.50 but < 6.50 , shall be placed in '**second class**'.

12.6 All other students who qualify for the award of the degree (as per item 12.1), with final CGPA (at the end of the under graduate programme) ≥ 5.00 but < 5.50 , shall be placed in '**pass class**'.

12.7 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.

12.8 Students fulfilling the conditions listed under item 12.3 alone will be eligible for award of '**Gold Medal**'.

13.0 Withholding of results

13.1 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.

14.0 Student transfers

14.1 There shall be no branch transfers after the completion of admission process.

14.2 There shall be no transfers from one college/stream to another within the constituent colleges and units of Jawaharlal Nehru Technological University Hyderabad.

14.3 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.

14.4 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 (internal marks) in the **equivalent subject(s)** as per the clearance letter issued by the University.

14.5 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, as per the clearance (equivalence) letter issued by the University.

15.0 Scope

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

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

15.3 The University 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 University authorities.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
(Established by State Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

Academic Regulations for B.Tech. (Lateral Entry Scheme) from the AY 2019-20

1. **Eligibility for 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 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.
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 year first semester.
2	Second year second semester to third year first semester	(i) Regular course of study of second year second semester. (ii) Must have secured at least 25 credits out of 42 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 third year second semester	Regular course of study of third year first semester.
4	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 51 credits out of 86 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 semester to fourth year second semester	Regular course of study of fourth year first 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).**

MALPRACTICES RULES

DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices/Improper conduct	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 other form 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 University.

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 not be 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 University 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 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 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 University 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 letters to 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 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-in-charge, or any person on duty	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.

	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.	
7.	Leaves the exam hall taking away answer 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 University 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 firearm in 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 and forfeits the seat.
9.	If student of the college, who is not a student 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.	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 and forfeits the seat. Person(s) who do not belong to the college will be handed over to the 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 student has already appeared for 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 student has appeared for 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 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 in encouraging malpractices)
 - a. A show cause notice shall be issued to the college.
 - b. Impose a suitable fine on the college.
 - c. Shifting the examination centre from one college to another college for a specific period of not less than one year.

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by State Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

ACADEMIC REGULATIONS FOR B.TECH. REGULAR STUDENTS

WITH EFFECT FROM THE

ACADEMIC YEAR 2016-17 (R-16)

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

1.1 JNTUH offers a 4-year (8 semesters) **Bachelor of Technology (B.Tech.)** degree programme, under Choice Based Credit System (CBCS) at its non-autonomous constituent and affiliated colleges with effect from the academic year 2016-17 in the following branches of Engineering:

Sl. No.	Branch
1.	Civil Engineering
2.	Electrical and Electronics Engineering
3.	Mechanical Engineering
4.	Electronics and Communication Engineering
5.	Computer Science and Engineering
6.	Chemical Engineering
7.	Electronics and Instrumentation Engineering
8.	Bio-Medical Engineering
9.	Information Technology
10.	Mechanical Engineering (Mechatronics)
11.	Electronics and Telematics Engineering
12.	Metallurgy and Material Technology
13.	Electronics and Computer Engineering
14.	Mechanical Engineering (Production)
15.	Aeronautical Engineering
16.	Instrumentation and Control Engineering
17.	Biotechnology
18.	Automobile Engineering
19.	Mining Engineering
20.	Petroleum Engineering
21.	Civil and Environmental Engineering
22.	Mechanical Engineering (Nano Technology)
23.	Computer Science & Technology
24.	Pharmaceutical Engineering



2.0 Eligibility for admission

2.1 Admission to the under graduate programme shall be made either on the basis of the merit rank obtained by the qualified candidate 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 under graduate programme in E&T will be **English** only.

3.0 B.Tech. Programme structure

3.1 A student after securing admission shall pursue the under graduate programme in B.Tech. 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 semester is structured to provide 24 credits, totaling to 192 credits for the entire B.Tech. programme.

Each student shall secure 192 credits (with CGPA 5) required for the completion of the under graduate 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 under graduate programme is of 4 academic years (8 semesters) with the academic year being divided into two semesters of 22 weeks (≥ 90 instructional days) each, each semester having - 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and curriculum / course structure as 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.
- One credit for two hours/ week/ semester for laboratory/ practical (P) courses or tutorials (T).

Courses like Environmental Science, Professional Ethics, Gender Sensitization lab and other student activities like NCC/NSO and NSS are identified as mandatory courses. These courses will not carry any credits.



3.2.3 Subject Course Classification

All subjects/ courses offered for the under graduate programme in E&T (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
1	Foundation Courses (FnC)	BS – Basic Sciences	Includes mathematics, physics and chemistry subjects
2		ES - Engineering Sciences	Includes fundamental Engineering subjects
3		HS – Humanities and Social sciences	Includes subjects related to humanities, social sciences and management
4	Core Courses (CoC)	PC – Professional Core	Includes core subjects related to the parent discipline/ department/ branch of Engineering.
5	Elective Courses (E C)	PE – Professional Electives	Includes elective subjects related to the parent discipline/ department/ branch of Engineering.
6		OE – Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the parent discipline/ department/ branch of Engineering.
7	Core Courses	Project Work	B.Tech. project or UG project or UG major project
8		Industrial training/ Mini- project	Industrial training/ Internship/ UG Mini-project/ Mini-project
9		Seminar	Seminar/ Colloquium based on core contents related to parent discipline/ department/ branch of Engineering.
10	Minor courses	-	1 or 2 Credit courses (subset of HS)
11	Mandatory Courses (MC)	-	Mandatory courses (non-credit)

4.0 Course registration

4.1 A ‘faculty advisor or counselor’ shall be assigned to a group of 15 students, who will advise student about the under graduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their competence, progress, pre-requisites and interest.



- 4.2 The academic section of the college invites 'registration forms' from students before the beginning of the semester through 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of SEEs (Semester End Examinations) of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor/ counselor and the student.
- 4.4 A student may be permitted to register for the subjects/ courses of **choice** with a total of 24 credits per semester (minimum of 20 credits and maximum of 28 credits per semester and permitted deviation of $\pm 17\%$), 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. However, a **minimum** of 20 credits per semester must be registered to ensure the '**studentship**' in any semester.
- 4.5 Choice for 'additional subjects/ courses' to reach the maximum permissible limit of 28 credits (above the typical 24 credit norm) must be clearly indicated, which needs the specific approval and signature of the faculty advisor/ counselor.
- 4.6 If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** 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.
- 4.7 Subject/ course options exercised through **on-line** 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 unforeseen 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 the **first week** after the commencement of class-work for that semester.
- 4.8 Dropping of subjects/ courses may be permitted, only after obtaining prior approval from the faculty advisor/ counselor (subject to retaining a minimum of 20 credits), '**within a period of 15 days**' from the beginning of the current semester.
- 4.9 **Open electives:** The students have to choose one open elective (OE-I) in III year I semester, one (OE-II) in III year II semester, and one (OE-III) in IV year II semester, from the list of open electives given. However, the student cannot opt for an open elective subject offered by their own (parent) department, if it is already listed under any category of the subjects offered by parent department in any semester.



4.10 Professional electives: students have to choose professional elective (PE-I) in III year II semester, Professional electives II, III, and IV (PE-II, III and IV) in IV year I semester, Professional electives V, and VI (PE-V and VI) in IV year II semester, from the list of professional electives given. However, the students may opt for professional elective subjects offered in the related area.

5.0 Subjects/ courses to be offered

5.1 A typical section (or class) strength for each semester shall be 60.

5.2 A subject/ course may be offered to the students, **only if** a minimum of 20 students (1/3 of the section strength) opt for it. The maximum strength of a section is limited to 80 (60 + 1/3 of the section strength).

5.3 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' (i.e. the first focus shall be on early **on-line entry** from the student for registration in that semester, and the second focus, if needed, will be on CGPA of the student).

5.4 If more entries for registration of a subject come into picture, then the Head of Department concerned shall decide, whether or not to offer such a subject/ course for **two (or multiple) sections**.

6.0 Attendance requirements:

6.1 A student shall be eligible to appear for the semester end examinations, if student acquires a minimum of 75% of attendance in aggregate of all the subjects/ courses (excluding attendance in mandatory courses Environmental Science, Professional Ethics, Gender Sensitization Lab, NCC/NSO and NSS) for that semester.

6.2 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.

6.3 A stipulated fee shall be payable towards 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. They will not be promoted to the next semester.** They may seek re-registration for all those subjects registered in that semester in which student was detained, by seeking re-admission into that semester as and when offered; in case 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 attendance requirements 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% marks (26 out of 75 marks) in the semester end examination, and a minimum of 40% of 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 UG mini-project and seminar, if student secures not less than 40% marks (i.e. 40 out of 100 allotted marks) in each of them. The student would be treated as failed, if student (i) does not submit a report on UG mini-project, 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 UG mini-project/ seminar evaluations.

Student may reappear once for each of the above evaluations, when they are scheduled again; if student fails in such 'one reappearance' evaluation also, student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

7.3 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 24 credits out of 48 credits i.e., 50% of 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 first semester	i. Regular course of study of second year second semester. ii. Must have secured at least 58 credits out of 96 credits i.e., 60% of



		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 86 credits out of 144 credits i.e., 60% of 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.

- 7.4** A student shall register for all subjects covering 192 credits as specified and listed in the course structure, fulfills all the attendance and academic requirements for 192 credits, ‘earn all 192 credits’ by securing SGPA ≥ 5.0 (in each semester) and CGPA (at the end of each successive semester) ≥ 5.0 to successfully complete the under graduate programme.
- 7.5** After securing the necessary 192 credits as specified for the successful completion of the entire under graduate programme, the student can avail exemption of two subjects up to 6 credits, that is, one open elective and one professional elective subject or two professional elective subjects for optional drop out from these 192 credits earned; resulting in 186 credits for under graduate programme performance evaluation, i.e., the performance of the student in these 186 credits shall alone be taken into account for the calculation of ‘the final CGPA (at the end of under graduate programme, which takes the SGPA of the IV year II semester into account)’, and shall be indicated in the grade card of IV year II semester. However, the performance of student in the earlier individual semesters, with the corresponding SGPA and CGPA for which grade cards have already been given will not be altered.
- 7.6** If a student registers for some more ‘**extra subjects**’ (in the parent department or other departments/branches of engg.) other than those listed subjects totaling to 192 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 192 credits) will not be taken into account while calculating the SGPA and CGPA. For such ‘**extra subjects**’ registered, % of marks and letter grade alone will be indicated in the grade card as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations 6 and 7.1 – 7.5 above.



- 7.7 A student eligible to appear in the end semester 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, 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.
- 7.8 A student **detained in a semester due to shortage of attendance, may be re-admitted when the same semester is offered in the next academic year for fulfillment of academic requirements.** The academic regulations under which student has been readmitted shall be applicable. However, no grade allotments or SGPA/ CGPA calculations will be done for the entire semester in which student has been detained.
- 7.9 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 student has been readmitted shall be applicable to him.
- 8.0 **Evaluation - Distribution and Weightage of marks**
- 8.1 The performance of a student in every subject/course (including practicals and UG major project) will be evaluated for 100 marks each, with 25 marks allotted for CIE (Continuous Internal Evaluation) and 75 marks for SEE (Semester End-Examination).
- 8.2 For theory subjects, during a semester, there shall be two mid-term examinations. Each mid-term examination consists of one objective paper, one descriptive paper and one assignment. The objective paper and the essay paper shall be for 10 marks each with a total duration of 1 hour 20 minutes (20 minutes for objective and 60 minutes for essay paper). The objective paper is set with 20 bits of multiple choice, fill-in the blanks and matching type of questions for a total of 10 marks. The essay paper shall contain 4 full questions out of which, the student has to answer 2 questions, each carrying 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 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-examination, and the second assignment should be submitted before the conduct of the second mid-examination. The total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each student in internals/sessionals. If any student is absent from any subject of a mid-term examination, an on-line test will be conducted for him by the university. The details of the question paper pattern are as follows,
- The end semester examinations will be conducted for 75 marks consisting of two parts viz. i) **Part- A** for 25 marks, ii) **Part - B** for 50 marks.
 - Part-A is compulsory question which consists of ten sub-questions. The first five sub-questions are from each unit and carry 2 marks each. The next five sub-questions are one from each unit and carry 3 marks each.



- 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 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.

- 8.3** For practical subjects there shall be a continuous internal evaluation during the semester for 25 sessional marks and 75 semester end examination marks. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned. The semester end examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the clusters of colleges which are decided by the examination branch of the university.
- 8.4** For the subject having design and/or drawing, (such as engineering graphics, engineering drawing, machine drawing) and estimation, the distribution shall be 25 marks for continuous internal evaluation (15 marks for day-to-day work and 10 marks for internal tests) and 75 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.
- 8.5** There shall be an UG mini-project, 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. The UG mini-project shall be submitted in a report form and presented before the committee in IV year I semester. It shall be evaluated for 100 marks. The committee consists of an external examiner, Head of the Department, supervisor of the UG mini-project and a senior faculty member of the department. There shall be no internal marks for UG mini-project.
- 8.6** There shall be a seminar presentation in IV year I semester. For the 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 marks. There shall be no semester end examination for the seminar.
- 8.7** Out of a total of 100 marks for the UG major project, 25 marks shall be allotted for internal evaluation and 75 marks for the end semester examination (viva voce). The end semester examination of the UG major project shall be conducted by the same committee as appointed for the UG mini-project. In addition, the UG major project supervisor shall also be included in the committee. The topics for UG mini project, seminar and UG major project shall be different from one another. The evaluation of UG major project shall be made at the end of IV year II semester. The internal evaluation shall be on the basis of two seminars given by each student on the topic of UG major project.



- 8.8** The laboratory marks and the sessional marks awarded by the college are subject to scrutiny and scaling by the university wherever necessary. In such cases, the sessional and laboratory marks awarded by the college will be referred to a committee. The committee will arrive at a scaling factor and the marks will be scaled accordingly. The recommendations of the committee are final and binding. The laboratory records and internal test papers shall be preserved in the respective institutions as per the university rules and produced before the committees of the university as and when asked for.
- 8.9** For mandatory courses environmental science, professional ethics 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.
- 8.10** For mandatory courses NCC/ NSO and NSS, a ‘satisfactory participation certificate’ shall be issued to the student from the authorities concerned, only after securing $\geq 65\%$ attendance in such a course.
- 8.11** No marks or letter grade shall be allotted for all mandatory/non-credit courses.

9.0 Grading procedure

- 9.1** Marks will be awarded to indicate the performance of student in each theory subject, laboratory / practicals, seminar, UG mini project and UG major project. 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 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 obtaining ‘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** A student who has not appeared for examination in any subject, ‘Ab’ grade will be allocated in that subject, and student shall be considered ‘failed’. Student will be required to reappear as a ‘supplementary student’ in the semester end examination, as and when offered.
- 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** The student passes the subject/ course only when **GP ≥ 5** (‘C’ grade or above)
- 9.8** The semester grade point average (SGPA) is calculated by dividing the sum of credit points ($\sum CP$) 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

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

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 i^{th} subject, and G_i represents the grade points (GP) corresponding to the letter grade awarded for that i^{th} 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 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

$$\text{CGPA} = \{ \sum_{j=1}^M C_j G_j \} / \{ \sum_{j=1}^M C_j \} \dots \text{for all S semesters registered}$$

(i.e., up to and inclusive of S semesters, S ≥ 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 j^{th} subject. After registration and completion of first year first 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	$4 \times 10 = 40$
Course 3	4	C	5	$4 \times 5 = 20$
Course 4	3	B	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

$$\text{SGPA} = 152/21 = 7.24$$

Illustration of calculation of CGPA:

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
I Year I Semester				
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	A+	9	$4 \times 9 = 36$
Course 3	4	B	6	$4 \times 6 = 24$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	B+	7	$3 \times 7 = 21$
Course 6	3	A	8	$3 \times 8 = 24$
I Year II Semester				
Course 7	4	B+	7	$4 \times 7 = 28$
Course 8	4	O	10	$4 \times 10 = 40$
Course 9	4	A	8	$4 \times 8 = 32$
Course 10	3	B	6	$3 \times 6 = 18$
Course 11	3	C	5	$3 \times 5 = 15$
Course 12	3	A+	9	$3 \times 9 = 27$
	Total Credits = 42			Total Credit Points = 327

$$\text{CGPA} = 327/42 = 7.79$$

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 For calculations listed in regulations 9.6 to 9.9, performance in failed subjects/ courses (securing **F** grade) will also be taken into account, and the credits of such subjects/ courses will also be included in the multiplications and summations. After passing the failed subject(s) newly secured letter grades will be taken into account for calculation of SGPA and CGPA. 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 student secures a GP 5 ('C' grade or above) in every subject/course in that semester (i.e. when student gets an SGPA ≥ 5.00 at the end of that particular semester); and a student shall be declared successful or 'passed' in the entire under graduate programme, only when gets a CGPA ≥ 5.00 for the award of the degree as required.

10.2 After the completion of each semester, a grade card or grade sheet (or transcript) 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, and grade earned etc.), credits earned, SGPA, and CGPA.

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.

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

12.0 Award of degree

12.1 A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 192 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 the B.Tech. degree in the chosen branch of Engineering as 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 Students with final CGPA (at the end of the under graduate programme) ≥ 8.00 , and fulfilling the following conditions -

- (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 have secured a CGPA ≥ 8.00 , at the end of each of the 8 sequential semesters, starting from first year first semester onwards.



- (iii) Should not have been detained or prevented from writing the end semester examinations in any semester due to shortage of attendance or any other reason, shall be placed in **'first class with distinction'**.
- 12.4** Students with final CGPA (at the end of the under graduate programme) ≥ 6.50 but < 8.00 , shall be placed in **'first class'**.
- 12.5** Students with final CGPA (at the end of the under graduate programme) ≥ 5.50 but < 6.50 , shall be placed in **'second class'**.
- 12.6** All other students who qualify for the award of the degree (as per item 12.1), with final CGPA (at the end of the under graduate programme) ≥ 5.00 but < 5.50 , shall be placed in **'pass class'**.
- 12.7** 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.
- 12.8** Students fulfilling the conditions listed under item 12.3 alone will be eligible for award of **'university rank'** and **'gold medal'**.
- 13.0 Withholding of results**
- 13.1** If the student has not paid the fees to the university/ 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 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.
- 14.0 Transitory regulations**
- 14.1** A student who has discontinued for any reason, or has been detained for want of attendance or lack of required credits as specified, or who has failed after having undergone the degree programme, may be considered eligible for readmission to the same subjects/ courses (or equivalent subjects/ courses, as the case may be), and same professional electives/ open electives (or from set/category of electives or equivalents suggested, as the case may be) as and when they are offered (within the time-frame of 8 years from the date of commencement of student's first year first semester).
- 15.0 Student transfers**
- 15.1** There shall be no branch transfers after the completion of admission process.
- 15.2** 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.

15.4 The transferred students from other Universities/institutions to JNTUH affiliated colleges who are on rolls to be provide one chance to write the CBT (internal marks) in the **failed subjects and/or subjects not studied** as per the clearance letter issued by the university.

15.5 The autonomous affiliated colleges have to provide one chance to write the internal examinations in the **failed subjects and/or subjects not studied**, to the students transferred from other universities/institutions to JNTUH autonomous affiliated colleges who are on rolls, as per the clearance (equivalence) letter issued by the University.

16.0 Scope

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

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

16.3 The university 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 date notified by the university authorities.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by State Act No. 30 of 2008)

Kukatpally, Hyderabad, Telangana (India).

Academic Regulations for B.Tech. (Lateral Entry Scheme) w.e.f the AY 2017-18

1. Eligibility for 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 144 credits and secure 144 credits with CGPA 5 from II year to IV year B.Tech. programme (LES) for the award of B.Tech. degree. **Out of the 144 credits secured, the student can avail exemption up to 6 credits**, that is, one open elective subject and one professional elective subject or two professional elective subjects resulting in 138 credits for B.Tech programme performance evaluation.

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 year first semester.
2	Second year second semester to third year first semester	(i) Regular course of study of second year second semester. (ii) Must have secured at least 29 credits out of 48 credits i.e., 60% of 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	(i) Regular course of study of third year second semester. (ii) Must have secured at least 58 credits out of 96 credits i.e., 60% of 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 semester to fourth year second semester	Regular course of study of fourth year first 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).



MALPRACTICES RULES

DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractice/Improper conduct	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 other form 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 UG major project 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 university.
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 UG major project) already appeared and shall not be 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 university 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 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 student has already appeared including practical examinations and UG major project 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 university 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 letters to 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 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-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 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 student has already appeared including practical examinations and UG major project 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 university examinations. The continuation of the course by the student 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 student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student 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 student has already appeared including practical examinations and UG major project and shall not be permitted for the remaining examinations of the subjects of that semester/year. The student 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 student has already appeared including practical examinations and UG major project 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 student has appeared including practical examinations and UG major project 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.	
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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 in encouraging malpractices)
 - a. A show cause notice shall be issued to the college.
 - b. Impose a suitable fine on the college.
 - c. Shifting the examination centre from the college to another college for a specific period of not less than one year.

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
(Established by Andhra Pradesh Act No.30 of 2008)
Kukatpally, Hyderabad - 500 085, Andhra Pradesh (India)

REVISED ACADEMIC REGULATIONS R15 FOR B. TECH. (REGULAR)

Applicable for the students of B. Tech. (Regular) from the Academic Year 2015-16 and onwards

1. **Award of B. Tech. Degree**

A student will be declared eligible for the award of B. Tech. Degree if he fulfils the following academic regulations:

- 1.1 The candidate shall pursue a course of study for not less than four academic years and not more than eight academic years.
- 1.2 After eight academic years of course of study, the candidate is permitted to write the examinations for two more years.
- 1.3 The candidate shall register for ¹**226 credits (224+2 (Gender Sensitization Course)) and secure 218 (216+2) credits. The student can avail exemption of two subjects upto 8 credits, that is, one open elective and one elective subject or two elective subjects**, with compulsory subjects as listed in Table-1.

Table 1: Compulsory Subjects

Serial Number	Subject Particulars
1	All practical subjects
2	Industry oriented mini project
3	Comprehensive Viva-Voce
4	Seminar
5	Project work

- 2 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.

3 **Courses of study**

The following courses of study are offered at present as specializations for the B. Tech. Course:

Branch Code	Branch
01	Civil Engineering
02	Electrical and Electronics Engineering
03	Mechanical Engineering
04	Electronics and Communication Engineering
05	Computer Science and Engineering
08	Chemical Engineering
10	Electronics and Instrumentation Engineering
11	Bio-Medical Engineering
12	Information Technology
14	Mechanical Engineering (Mechatronics)
17	Electronics and Telematics Engineering
18	Metallurgy and Material Technology
19	Electronics and Computer Engineering
20	Mechanical Engineering (Production)
21	Aeronautical Engineering
22	Instrumentation and Control Engineering
23	Biotechnology
24	Automobile Engineering
25	Mining Engineering

¹ Univ. Procs No. A1/2557/XXII SCAS/2016 dated 18.01.2016

27	Petroleum Engineering
28	Civil and Environmental Engineering
29	Mechanical Engineering (Nano Technology)
31	Computer Science & Technology
	Pharmaceutical Engineering

4 **Credits**

	I Year		Semester	
	Periods / Week	Credits	Periods / Week	Credits
Theory	03+1/03	06	04	04
	02	04	--	--
Practical	03	04	03	02
Drawing	02+03	06	03	02
			06	04
Mini Project	--	--	--	02
Comprehensive Viva Voce	--	--	--	02
Seminar	--	--	6	02
Project	--	--	15	10

5 **Distribution and Weightage of Marks**

- 5.1 The performance of a student in each semester or I year shall be evaluated subject-wise for a maximum of 100 marks for a theory and 75 marks for a practical subject. In addition, industry-oriented mini-project, seminar and project work shall be evaluated for 50, 50 and 200 marks, respectively.
- 5.2 For theory subjects the distribution shall be 25 marks for Internal Evaluation and 75 marks for the End-Examination.
- 5.3 For theory subjects, during a semester there shall be 2 mid-term examinations. Each mid-term examination consists of one objective paper, one essay paper and one assignment. The objective paper and the essay paper shall be for 10 marks each with a total duration of 1 hour 20 minutes (20 minutes for objective and 60 minutes for essay paper). The Objective paper is set with 20 bits of multiple choice, fill-in the blanks and matching type of questions for a total of 10 marks. The essay paper shall contain 4 full questions (one from each unit) out of which, the student has to answer 2 questions, each carrying 5 marks. While the first mid-term examination shall be conducted on 1 to 2.5 units of the syllabus, the second mid-term examination shall be conducted on 2.5 to 5 units. 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-examination, and the second Assignment should be submitted before the conduct of the second mid-examination. The total marks secured by the student in each mid-term examination are evaluated for 25 marks, and the average of the two mid-term examinations shall be taken as the final marks secured by each candidate. However, in the I year, there shall be 3 mid term examinations, each for 25 marks, along with 3 assignments in a similar pattern as above (1st mid shall be from Unit-I, 2nd mid shall be 2 & 3 Units and 3rd mid shall be 4 & 5 Units) and the average marks of the examinations secured (each evaluated for a total of 25 marks) in each subject shall be considered to be final marks for the internals/sessionals. If any candidate is absent from any subject of a mid-term examination, an on-line test will be conducted for him by the University.

The details of the Question Paper pattern is as follows:

- *The End semesters Examination will be conducted for 75 marks which consists of two parts viz. i). Part-A for 25 marks, ii). Part –B for 50 marks.*
 - *Part-A is compulsory question which consists of ten sub-questions. The first five sub-questions are from each unit and carries 2 marks each. The next five sub-questions are one from each unit and carries 3 marks each.*
 - *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 sub-questions. For each question there will be an "either" "or" choice (that means there will be two questions from each unit and the student should answer any one question)*
- 5.4 For practical subjects there shall be a continuous evaluation during a semester for 25 sessional marks and 50 end semester examination marks. Out of the 25 marks for internal evaluation, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination shall be evaluated for 10 marks conducted by the laboratory teacher concerned. The end semester examination shall be conducted with an external examiner and the laboratory teacher. The external examiner shall be appointed from the clusters of colleges which are decided by the examination branch of the University.

- 5.5 For the subject having design and/or drawing, (such as Engineering Graphics, Engineering Drawing, Machine Drawing) and Estimation, the distribution shall be 25 marks for internal evaluation (15 marks for day-to-day work and 10 marks for internal tests) and 75 marks for end semester 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. However, in the I year class, there shall be three tests and the average will be taken into consideration.
- 5.6 There shall be an industry-oriented Mini-Project, in collaboration with an industry of their specialization, to be taken up during the vacation after III year II Semester examination. However, the mini-project and its report shall be evaluated along with the project work in IV year II Semester. The industry oriented mini-project shall be submitted in a report form and presented before the committee. It shall be evaluated for 50 marks. The committee consists of an external examiner, head of the department, the supervisor of the mini-project and a senior faculty member of the department. There shall be no internal marks for industry-oriented mini-project.
- 5.7 There shall be a seminar presentation in IV year II Semester. For the seminar, the student shall collect the information on a specialized topic and prepare a technical report, showing his understanding of the topic, 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 50 marks. There shall be no external examination for the seminar.
- 5.8 There shall be a Comprehensive Viva-Voce in IV year II semester. The Comprehensive Viva-Voce will be conducted by a Committee consisting of Head of the Department and two Senior Faculty members of the Department. The Comprehensive Viva-Voce is intended to assess the student's understanding of the subjects he studied during the B. Tech. course of study. The Comprehensive Viva-Voce is evaluated for 100 marks by the Committee. There are no internal marks for the Comprehensive Viva-Voce.
- 5.9 Out of a total of 200 marks for the project work, 50 marks shall be allotted for Internal Evaluation and 150 marks for the End Semester Examination (Viva Voce). The End Semester Examination of the project work shall be conducted by the same committee as appointed for the industry-oriented mini-project. In addition, the project supervisor shall also be included in the committee. The topics for industry oriented mini project, seminar and project work shall be different from one another. The evaluation of project work shall be made at the end of the IV year. The Internal Evaluation shall be on the basis of two seminars given by each student on the topic of his project.
- 5.10 The Laboratory marks and the sessional marks awarded by the College are subject to scrutiny and scaling by the University wherever necessary. In such cases, the sessional and laboratory marks awarded by the College will be referred to a Committee. The Committee will arrive at a scaling factor and the marks will be scaled accordingly. The recommendations of the Committee are final and binding. The laboratory records and internal test papers shall be preserved in the respective institutions as per the University rules and produced before the Committees of the University as and when asked for.
- 5.11 **²The 'Gender Sensitization' course in II Year II semester in B.Tech. and B. Pharmacy for all the branches in the Constituent and Affiliated Colleges of JNTUH including Autonomous Colleges as a compulsory subject in addition to the existing course structure of R 13 and R15 Regulations and it should be treated as a Lab subject (Student Centered) with two credits from the academic year 2015-16.**
- 5.12 **Internal assessment should be based on attendance requirement as per the norms of the University, Assignments (during the course) and a mini project (at the end of the course).**
- 5.13 **Since this is a value added course, the name of the course may be reflected in the Marks Memo. Final result would be Pass/Fail based on the marks obtained in the Internal Evaluation. Marks obtained in the course will not be included in the aggregate marks for the award of the degree. 40% marks should be obtained to get a pass grade**

6 Attendance Requirements

- 6.1 A student is eligible to write the University examinations only if he acquires a minimum of 75% of attendance in aggregate of all the subjects.
- 6.2 Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester or I year may be granted by the College Academic Committee
- 6.3 Shortage of Attendance below 65% in aggregate shall not be condoned.
- 6.4 A student who is short of attendance in semester / I year may seek re-admission into that semester/I year when offered within 4 weeks from the date of the commencement of class work.
- 6.5 Students whose shortage of attendance is not condoned in any semester/I year are not eligible to write their end semester examination of that class and their registration stands cancelled.
- 6.6 A stipulated fee shall be payable towards condonation of shortage of attendance.

² Univ. Procds No. A1/2557/XXII SCAS/2015 (2) dated 19.11.2015

- 6.7 A student will be promoted to the next semester if he satisfies the attendance requirement of the present semester/I year, as applicable, including the days of attendance in sports, games, NCC and NSS activities.
- 6.8 If any candidate fulfills the attendance requirement in the present semester or I year, he shall not be eligible for readmission into the same class.

7 Minimum Academic Requirements

The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in item no.6.

- 7.1 A student is deemed to have satisfied the minimum academic requirements if he has earned the credits allotted to each theory/practical design/drawing subject/project and secures not less than 35% of marks in the end semester exam, and minimum 40% of marks in the sum total of the mid-term and end semester exams.
- 7.2 A student will not be promoted from I Year to II Year unless he fulfills the academic requirement of 28 credits out of 56 credits of I year from all the examinations and secures prescribed minimum attendance in I year.
- 7.3 **³A student shall be promoted from Second Year to Third year only if he fulfills the academic requirement of 50 credits (excluding 2 credits of Gender Sensitization Course) from one regular and one supplementary examinations of I year, and one regular and one supplementary examination of II year I semester irrespective of whether or not the candidate takes the examination, and secures prescribed minimum attendance in II Year II Semester.**
- 7.4 **A student shall be promoted from third year to fourth year only if he fulfils the academic requirements of total 84 credits (excluding 2 credits of Gender Sensitization Course) from the following examinations, whether the candidate takes the examinations or not, and secures prescribed minimum attendance in III Year II Semester.**
 - a. **Two regular and two supplementary examinations of I year.**
 - b. **Two regular and two supplementary examinations of II year I semester.**
 - c. **Two regular and one supplementary examinations of II year II semester.**
 - d. **One regular and one supplementation examination of III year I semester.**
- 7.5 A student shall register and put up minimum attendance in all **226** credits and earn **218** credits. Marks obtained in the best 216 credits shall be considered for the calculation of percentage of marks.
- 7.6 Students who fail to earn **218** credits as indicated in the course structure within ten academic years (8 years of study + 2 years additionally for appearing for exams only) from the year of their admission, shall forfeit their seat in B.Tech. course and their admission stands cancelled.

8 Course pattern

- 8.1 The entire course of study is for four academic years. I year shall be on yearly pattern and II, III and IV years on semester pattern.
- 8.2 A student, eligible to appear for the end examination in a subject, but absent from it or has failed in the end semester examination, may write the exam in that subject during the period of supplementary exams.
- 8.3 When a student is **⁴detained in a semester/year due to shortage of attendance, he may be re-admitted when the same semester/year is offered for the next academic year for fulfillment of academic requirements.** However, the academic regulations under which he was first admitted, shall continues to be applicable to him.
- 8.4 When a student is detained **due to lack of credits, he may be promoted to the next academic year only after acquiring the required academic credits.** However, the academic regulations under which he was first admitted, shall continues to be applicable to him.

³ Procds No. A1/2557/XXI SCAS/2015 (1) dated 09.10.2015

⁴ Procds No. A1/2557/XXI SCAS/2015 (1) dated 09.10.2015

9 Award of Class

After a student has satisfied the requirements prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	% of marks to be secured	From the aggregate marks secured from 216 Credits.
First Class with Distinction	70% and above	
First Class	Below 70 but not less than 60%	
Second Class	Below 60% but not less than 50%	
Pass Class	Below 50% but not less than 40%	

The marks obtained in internal evaluation and end semester / I year examination shall be shown separately in the memorandum of marks.

10 Minimum Instruction Days

The minimum instruction days for each semester/I year shall be 90/180 days.

11 There shall be no branch transfers after the completion of the admission process.

12 There shall be no transfer from one college/stream to another within the Constituent Colleges and Units of Jawaharlal Nehru Technological University Hyderabad.

13 WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the university or if any case of indiscipline is pending against him, the result of the student will be withheld and he will not be allowed into the next semester. His degree will be withheld in such cases.

14. TRANSITORY REGULATIONS

14.1 Discontinued, detained, or failed candidates are eligible for readmission as and when next offered.

14.2 After the revision of the regulations, the students of the previous batches will be given two chances for passing in their failed subjects, one supplementary and the other regular. If the students cannot clear the subjects in the given two chances, they shall be given equivalent subjects as per the revised regulations which they have to pass in order to obtain the required number of credits.

14.3 In case of transferred students from other Universities, the credits shall be transferred to JNTUH as per the academic regulations and course structure of the JNTUH.

15. General

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

15.2 The academic regulation should be read as a whole for the purpose of any interpretation.

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

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

15.5 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 candidates have not studied at the earlier Institution on their own without the right to sessional marks. 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 candidates have to study those subjects in JNTUH in spite of the fact that those subjects are repeated.

*_*_*



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
(Established by Andhra Pradesh Act No.30 of 2008)
Kukatpally, Hyderabad - 500 085, Andhra Pradesh (India)

REVISED ACADEMIC REGULATIONS R15 FOR B. TECH. (LATERAL ENTRY SCHEME)

Applicable for the students admitted into II year B. Tech. (LES) from the Academic Year **2015-16** and onwards

1. **Eligibility for award of B. Tech. Degree (LES)**
 - I. The LES candidates shall pursue a course of study for not less than three academic years and not more than six academic years.
 - II. They shall be permitted to write the examinations for two more years after six academic years of course work.
2. The candidate shall register for 170 credits and secure 162 credits from II to IV year B.Tech. Program (LES). **The student can avail exemption of two subjects upto 8 credits, that is, one open elective and one elective subject or two elective subjects for the award of B.Tech. degree** with compulsory subjects as listed in Table-1.

Table 1: Compulsory Subjects

Serial Number	Subject Particulars
1	All practical subjects
2	Industry oriented mini project
3	Comprehensive Viva-Voce
4	Seminar
5	Project work

3. The students, who fail to fulfil the requirement for the award of the degree in 8 consecutive academic years (6 years of study + 2 years additionally for appearing exams only) from the year of admission, shall forfeit their seats.
4. The attendance regulations of B. Tech. (Regular) shall be applicable to B.Tech. (LES).
5. **Promotion Rule**
 - 5.1 A student shall be promoted from II Year to III year only if he fulfills the academic requirement of 17 credits (excluding 2 credits of Gender Sensitization Course) from one regular and one supplementary examinations of II year I semester irrespective of whether or not the candidate takes the examination, and secures prescribed minimum attendance in II Year II Semester.
 - 5.2 A student shall be promoted from III year to IV year only if he fulfils the academic requirements of 50 credits (excluding 2 credits of Gender Sensitization Course) from the following examinations, whether the candidate takes the examinations or not, and secures prescribed minimum attendance in III Year II Semester.
 - a. Two regular and two supplementary examinations of II year I semester.
 - b. Two regular and one supplementary examinations of II year II semester.
 - c. One regular and one supplementation examination of III year I semester.

6. **Award of Class**

After a student has satisfied the requirement prescribed for the completion of the program and is eligible for the award of B. Tech. Degree, he shall be placed in one of the following four classes:

Class Awarded	% of marks to be secured	From the aggregate marks secured from 160 Credits from II year to IV year.
First Class with Distinction	70% and above	
First Class	Below 70% but not less than 60%	
Second Class	Below 60% but not less than 50%	
Pass Class	Below 50% but not less than 40%	

⁵ Procds No. A1/2557/XXI SCAS/2015 (1) dated 09.10.2015

The marks obtained in the internal evaluation and the end semester examination shall be shown separately in the marks memorandum.

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

MALPRACTICES RULES

DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

	Nature of Malpractices/Improper conduct	Punishment
	<i>If the candidate:</i>	
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 letters to 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	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

	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-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.	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.	

Malpractices identified by squad or special invigilators

1. Punishments to the candidates as per the above guidelines.
2. Punishment for institutions : (if the squad reports that the college is also involved in encouraging malpractices)
 - (i) A show cause notice shall be issued to the college.

- (ii) Impose a suitable fine on the college.
- (iii) Shifting the examination centre from the college to another college for a specific period of not less than one year.

* * * * *

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
REVISED ACADEMIC CALENDAR (2019-20)
B. TECH. I YEAR I & II SEMESTERS

I SEM

S. No	EVENT	DATE	Duration
1	Induction programme	1 st to 14 th Aug. 2019	2 weeks
2	Commencement of Instruction	16 th Aug. 2019	
3	Dussehra recess	7 th to 9 th Oct. 2019	2 weeks
4	First Mid Term Examinations	24 th to 26 th Oct. 2019	
5	Submission of First Mid Term Exam Marks to University on or before	2 nd Nov. 2019	
6	Parent-Teacher Meeting	9 th Nov. 2019	
7	Last date of Instruction	7 th Dec. 2019	
8	Second Mid Term Examinations	18 th to 20 th Dec. 2019	16 weeks
9	Preparation Holidays and Practical Examinations	21 st to 28 th Dec. 2019	1 week
10	Submission of Second Mid Term Exam Marks to University on or before	28 th Dec. 2019	
11	End Semester / Supplementary Examinations	30 th Dec. 2019 to 11 th Jan 2020	2 weeks

II SEM

S. No	EVENT	DATE	Duration
1	Commencement of Instruction	13 th Jan 2020	
2	First Mid Term Examinations	5 th to 7 th March 2020	
3	Submission of First Mid Term Exam Marks to University on or before	14 th March 2020	
4	Parent-Teacher Meeting	11 th April 2020	
5	Last date of Instruction	7 th May 2020	
6	Second Mid Term Examinations	2 nd to 5 th May 2020	16 weeks
7	Preparation Holidays and Practical Examinations	6 th to 13 th May 2020	1 week
8	Submission of Second Mid Term Exam Marks to University on or before	13 th May 2020	
9	End Semester / Supplementary Examinations	14 th to 28 th May 2020	2 weeks
10	Summer Vacation	29 th May to 4 th July	5 weeks

P. Subrahmanth
 21.10.19

DIRECTOR
 ACADEMIC & PLANNING, JNTUH

J. S.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
REVISED ACADEMIC CALENDAR (2019-20)
FOR NON-AUTONOMOUS CONSTITUENT & AFFILIATED COLLEGES
B. TECH./B.PHARM. II, III & IV YEARS I & II SEMESTERS

I SEM

S. No	EVENT	DATE	Duration
1	Commencement of Instruction	15 th July 2019	--
2	First Mid Term Examinations	12 th to 14 th Sept. 2019	--
3	Submission of First Mid Term Exam Marks to University on or before	20 th Sept. 2019	--
4	Parent-Teacher Meeting	21 st Sept. 2019	--
5	Dussehra recess	7 th to 19 th Oct. 2019	2 weeks
6	Last date of Instruction	20 th Nov. 2019	17 weeks
7	Second Mid Term Examinations	21 st to 23 rd Nov. 2019	--
8	Preparation Holidays and Practical Examinations	25 th to 30 th Nov. 2019	1 week
9	Submission of Second Mid Term Exam Marks to University on or before	30 th Nov. 2019	--
10	End Semester Examinations	2 nd to 14 th Dec. 2019	2 weeks

II SEM

S. No	EVENT	DATE	Duration
1	Commencement of Instruction	16 th Dec. 2019	--
2	First Mid Term Examinations	10 th to 12 th Feb. 2020	--
3	Submission of First Mid Term Exam Marks to University on or before	19 th Feb. 2020	--
4	Parent-Teacher Meeting	14 th March 2020	--
5	Last date of Instruction	7 th April 2020	16 weeks
6	Second Mid Term Examinations	8 th to 11 th April 2020	--
7	Preparation Holidays and Practical Examinations	13 th to 18 th April 2020	1 week
8	Submission of Second Mid Term Exam Marks to University on or before	18 th April 2020	--
9	End Semester Examinations	20 th April to 2 nd May 2020	2 weeks
10	Summer Vacation	4 th May to 4 th July 2020	9 weeks




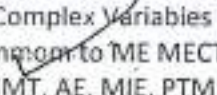
P. Subramani
21.10.19

DIRECTOR
ACADEMIC & PLANNING, JNTUH


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
 KUKATPALLY - HYDERABAD - 500085
 EXAMINATION BRANCH
II YEAR B.TECH I SEMESTER R18 REGULATION I-MID TERM EXAMINATIONS SEPTEMBER -2019
 T I M E T A B L E


TIME → FN: 10.00 AM TO 11.30 AM
 AN: 02.00 PM TO 03.30 PM


BRANCH	DATE, SESSION AND DAY				
	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY
CIVIL ENGINEERING (01-C E)	Surveying and Geomatics 	Engineering Geology 	Strength of Materials - I	Probability and Statistics 	Fluid Mechanics
ELECTRICAL AND ELECTRONICS ENGINEERING (02- EEE)	Engineering Mechanics	Electrical Circuit Analysis	Analog Electronics	Electrical Machines - I	Electromagnetic Fields
MECHANICAL ENGINEERING (03- ME)	Probability and Statistics & Complex Variables (common to ME, MECT, MMT, AE, MIE, PTM) 	Mechanics of Solids (common to ME, MECT, MIE)	Material Science and Metallurgy (common to ME, MECT)	Production Technology	Thermodynamics

DATE: 28-08-2019

* Civil :- 

* CSE :- 

* ME :- 

* ECE :- 



CONTINUED ON PAGE -2

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD - 500085

EXAMINATION BRANCH

II YEAR B.TECH I SEMESTER R18 REGULATION I- MID TERM EXAMINATIONS SEPTEMBER -2019

T I M E T A B L E

TIME → FN: 10.00 AM TO 11.30 AM

AN: 02.00 PM TO 03.30 PM

BRANCH	DATE, SESSION AND DAY				
	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY
ELECTRONICS & COMMUNICATIONS ENGINEERING (04- ECE)	Probability Theory and Stochastic Processes	Network Analysis and Transmission Lines	Digital System Design	Signals and Systems (Common TO ECE, EIE)	Electronic Devices and Circuits (Common TO ECE, EIE, MECT)
COMPUTER SCIENCE & ENGINEERING (05- CSE)	Analog and Digital Electronics (Common TO CSE, IT)	Data Structures (Common TO CSE , IT)	Computer Oriented Statistical Methods (Common TO CSE , IT)	Object Oriented Programming using C++ (Common TO CSE, IT)	Computer Organization and Architecture
ELECTRONICS AND INSTRUMENTATION ENGINEERING (10EIE)	Electronic Measurements	Network Theory	Transducers Engineering	Signals and Systems (Common TO ECE, EIE)	Electronic Devices and Circuits (Common TO ECE, EIE, MECT)

DATE: 28-08-2019

CONTINUED ON PAGE -3



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD - 5000 85

EXAMINATION BRANCH

III YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM

AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY
CIVIL ENGINEERING (01-CE)	Fundamentals of Management (Common to CE, EEE, ME, ECE, CSE, EIE, BME, IT, MECT, ETM, MME, E.COMP.E, AE, /AME, MNE, PTM, CEE, MSNT)	Concrete Technology (Common to CE, CEE)	Design of Reinforced Concrete Structures (Common to CE, CEE)	Water Resources Engineering	<p style="text-align: center;">(Open Elective-I)</p> Analog and Digital I.C. Applications Computer Graphics Computer Organization Database Management Systems Electrical Engineering Materials Electronic Measurements and Instrumentation Environmental Engineering Fabrication Processes Fundamentals of Engineering Materials Fundamentals of Mechanical Engineering Intellectual Property Rights Introduction to Mechatronics Introduction to Mining Technology Introduction to Space Technology Materials Characterization Techniques Materials Science and Engineering Nanotechnology Non destructive Testing Methods Non-Conventional Power Generation Operating Systems Optimization Technique Principles of Electronic Communications Reliability Engineering Renewable Energy Sources Scripting Languages

Date: 28-08-2019



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

KUKATPALLY - HYDERABAD - 5000 85

EXAMINATION BRANCH

III YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM

AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY	
MECHANICAL ENGINEERING 03-ME)	Fundamentals of Management (Common to CE, EEE, ME, ECE, CSE, EIE, BME, IT, MECT, ETM, MME, E.COMP.E, AE, AME, MNE, PTM, CEE, MSNT)	Thermal Engineering-I (Common to ME, AME)	Metrology and Machine Tools	Design of Machine Members -I	(Open Elective-I)	
						Analog and Digital I.C. Applications
						Computer Organization
						Database Management Systems
						Disaster Management
						Electrical Engineering Materials
						Electronic Measurements and Instrumentation
						Environmental Engineering
						Fabrication Processes
						Fundamentals of Engineering Materials
						Intellectual Property Rights
						Introduction to Mining Technology
						Introduction to Space Technology
						Materials Characterization Techniques
						Materials Science and Engineering
						Nanotechnology
						Non destructive Testing Methods
						Non-Conventional Power Generation
						Operating Systems
						Principles of Electronic Communications
					Reliability Engineering	
					Renewable Energy Sources	
					Scripting Languages	

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KUKATPALLY - HYDERABAD - 5000 85

EXAMINATION BRANCH

III YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

Date: 28-08-2019

TIME → FN: 10.00 AM TO 11.30 AM
AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY
ELECTRONICS AND COMMUNICATION ENGINEERING (04-ECE)	Fundamentals of Management (Common to CE, EEE, ME, ECE, CSE, EIE, EME, IT, MECT, ETM, MME, E.COMP.E, AE, A.ME, MNE, PTM, CEE, MSNT)	Digital Communications (Common to ECE, ETM)	Electromagnetic Theory and Transmission Lines (Common to ECE, ETM)	Linear and Digital IC Applications (Common to ECE, EIE, BME E.COMP.E, ETM)	(Open Elective-I)
					Analog and Digital I.C. Applications
					Computer Graphics
					Computer Organization
					Database Management Systems
					Disaster Management
					Electrical Engineering Materials
					Electronic Measurements and Instrumentation
					Environmental Engineering
					Fabrication Processes
					Fundamentals of Engineering Materials
					Fundamentals of Mechanical Engineering
					Intellectual Property Rights
					Introduction to Mechatronics
					Introduction to Mining Technology
					Introduction to Space Technology
					Materials Characterization Techniques
					Materials Science and Engineering
					Nanotechnology
					Non destructive Testing Methods
Non-Conventional Power Generation					
Operating Systems					
Optimization Techniques					
Reliability Engineering					
Renewable Energy Sources					
Scripting Languages					

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EXAMINATION BRANCH

III YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

Date: 28-08-2019

TIME → FN: 10.00 AM TO 11.30 AM
AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY
COMPUTER SCIENCE AND ENGINEERING (05-CSE)	Fundamentals of Management (Common to CE, EEE, ME, ECE, CSE, EIE, BME, IT, MECT, ETM, MME, E.COMP.E, AE, AME, MNE, PTM, CEE, MSNT)	Design and Analysis of Algorithms (Common to CSE, IT)	Software Engineering (Common to CSE, ECOMP.E, IT)	Data Communication and Computer Networks (Common to CSE, IT)	(Open Elective-I)
					Analog and Digital I.C. Applications
					Computer Graphics
					Computer Organization
					Disaster Management
					Electrical Engineering Materials
					Electronic Measurements and Instrumentation
					Environmental Engineering
					Fabrication Processes
					Fundamentals of Engineering Materials
					Fundamentals of Mechanical Engineering
					Intellectual Property Rights
					Introduction to Mechatronics
					Introduction to Mining Technology
					Introduction to Space Technology
					Materials Characterization Techniques
					Materials Science and Engineering
					Nanotechnology
					Non destructive Testing Methods
					Non-Conventional Power Generation
Optimization Techniques					
Principles of Electronic Communications					
Reliability Engineering					
Renewable Energy Sources					
Scripting Languages					

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EXAMINATION BRANCH

IV YEAR B.TECH - I SEMESTER - R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM

AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY	14-09-2019 AN SATURDAY	16-09-2019 FN MONDAY	16-09-2019 AN MONDAY	17-09-2019 FN TUESDAY
CIVIL ENGINEERING (01-CE)	TRANSPORTATION ENGINEERING (Common to CE, CE3)	E4	ESTIMATION QUANTITY SURVEYING AND VALUATION	E3	E2	E4	E3	---	---
		BRIDGE ENGINEERING (Common to CE, CEE)		CONSTRUCTION TECHNOLOGY AND MANAGEMENT (Common to CE, CEE)	IRRIGATION AND HYDRAULIC STRUCTURES (Common to CE, CEE)	GROUND IMPROVEMENT TECHNIQUES			
		TRAFFIC ENGINEERING		PRESTRESSED CONCRETE (Common to CE, CEE)	FOUNDATION ENGINEERING	SOIL DYNAMICS AND MACHINE FOUNDATION	RAILWAY AND AIRPORT ENGINEERING		
		REHABILITATION AND RETROFITTING OF STRUCTURES		STOCHASTIC HYDROLOGY	WATERSHED MANAGEMENT				

Date: 28-08-2019



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EXAMINATION BRANCH

IV YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM

AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY	14-09-2019 AN SATURDAY	16-09-2019 FN MONDAY	16-09-2019 AN MONDAY	17-09-2019 FN TUESDAY
MECHANICAL ENGINEERING (03-ME)	INSTRUMENTATION AND CONTROL SYSTEMS (Common ME, AME)	E2		E3	E3	---	E3	E4	
		OPERATIONS RESEARCH (Common ME, MECT, MMT, AE, AME)		COMPUTATIONAL FLUID DYNAMICS (Common ME, AE, AME, MSNT)		MECHANICAL VIBRATIONS (Common ME, AME)			
		POWER PLANT ENGINEERING (Common ME, MSNT)	CAD / CAM (Common ME, AE, MSNT)		ROBOTICS (Common ME, AME, MSNT)		CNC TECHNOLOGY (Common ME, MSNT)	ADDITIVE MANUFACTURING TECHNOLOGY	-
		COMPOSITE MATERIALS		ENGINEERING TRIBOLOGY		MEMS			
		INDUSTRIAL MANAGEMENT			TURBO MACHINES				

Date: 28-08-2019

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EXAMINATION BRANCH

IV YEAR B.TECH - I SEMESTER - R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM
AN: 02.00 PM TO 03.30 PM

BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY	14-09-2019 AN SATURDAY	16-09-2019 FN MONDAY	16-09-2019 AN MONDAY	17-09-2019 FN TUESDAY
ELECTRONICS AND COMMUNICATION ENGINEERING (04-ECE)	E2	E4	E4			E3	E2		
	COMPUTER NETWORKS Common to (ECE, BME, ETM)	OBJECT ORIENTED PROGRAMMING Common to (ECE, ETM)	OPTIMIZATION TECHNIQUES Common to (EEE, ECE, ETM)			EMBEDDED SYSTEM DESIGN Common to (ECE, EIE, ETM, ECM)	CODING THEORY AND TECHNIQUES Common to (ECE, ETM)		
		ARTIFICIAL INTELLIGENCE Common to (ECE, EIE, ECM)	ELECTRONIC MEASUREMENTS AND INSTRUMENTATION	MICROWAVE ENGINEERING Common to (ECE, ETM)	---	INTERNET OF THINGS Common to (ECE, CSE, IT)		VLSI DESIGN Common to (ECE, EIE, ETM)	---
	EPGA PROGRAMMING					RADAR SYSTEMS	SOFT COMPUTING TECHNIQUES		
					WIRELESS COMMUNICATIONS AND NETWORKS				

Date: 28-08-2019

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EXAMINATION BRANCH

IV YEAR B.TECH - I SEMESTER- R16 REGULATION I - MID TERM EXAMINATIONS SEPTEMBER-2019

TIME → FN: 10.00 AM TO 11.30 AM

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BRANCH	12-09-2019 FN THURSDAY	12-09-2019 AN THURSDAY	13-09-2019 FN FRIDAY	13-09-2019 AN FRIDAY	14-09-2019 FN SATURDAY	14-09-2019 AN SATURDAY	16-09-2019 FN MONDAY	16-09-2019 AN MONDAY	17-09-2019 FN TUESDAY
COMPUTER SCIENCE AND ENGINEERING (05-CSE)	DATA MINING (Common to CSE, IT)	E3	---	PRINCIPLES OF PROGRAMMI NG LANGUAGES	---	E2	---	E4	---
		SOFTWARE PROCESS AND PROJECT MANAGEMENT T (Common to CSE, IT)				INTERNET OF THINGS (Common to ECE, CSE, IT)		CLOUD COMPUTING (Common to CSE, IT, ECM)	
		DISTRIBUTD SYSTEMS				PYTHON PROGRAMMING (Common to CSE, IT)		BLOCKCHAIN TECHNOLOGY (Common to (SE, IT)	
		GRAPH THEORY				WEB SCRIPTING LANGUAGES (Common to CSE, IT)		SOCIAL NETWORK ANALYSIS (Common to (SE, IT)	
		MACHINE LEARNING				MOBILE APPLICATION DEVELOPMENT		COMPUTATION AL COMPLEXITY	

Date: 28-08-2019



Sri Indu Institute of Engineering & Technology

Shereguda (V), Ibrahimpatnam (M), R.R.Dist-501 510

I - Mid Examinations, SEPT -2019

Set - I

Year & Branch: III ECE

Date: 13-09-2019

Subject: EMTL

Max. Marks: 10

Time: 60 mins

Answer any **TWO** Questions. All Question Carry Equal Marks

2*5=10 marks

(This question paper is prepared with Course Outcome and BT's mapping)

1. a) State and Explain Maxwell's two equations for Electrostatic Fields. 3M C311.1 knowledge, Comprehension
- b) Point charges 5 nC and -2 nC are located at (2,0,4) and (-3,0,5) respectively. Determine the force on a 1nC point charge located at (1,-3,7) 2M C311.1 Evaluation
2. a) Three-point charge -1nC, 4nC and 3nC are located at (0, 0, 0), (0, 0, 1) and (1, 0, 0) respectively. Determine the energy in the system. 2M C311.1 Evaluation
- b) Distinguish between convection and conduction currents 3M C311.1 Comprehension
3. a) A circular loop located on $x^2+y^2=9, z=0$ carries a direct current of 10A along a_ϕ . Apply ampere's law and interpret H at (0, 0, 4) and (0, 0, -4). 2M C311.2 Application
- b) State Faraday's law. Explain the methods that cause variation of flux with time 3M C311.2 knowledge, Comprehension
4. a) Explain the concept of displacement current 3M C311.2 Comprehension
- b) Interpret the boundary conditions at the interface of dielectric and perfect conductor 2M C311.2 Application


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B-Tech I - Mid Examinations, SEP -2019

Objective Type Exam

Year & Branch: III -ECE-A,B&C

Date: 13-09-2019(FN)

Subject: EMTL

Max. Marks: 10

Time: 20 mins

Name: Roll No.....

Choose the correct answers.

1. The study of effect associated with electric field at rest is known as []
 - a) electrostatics
 - b) electromagnetism
 - c) Magnetostatic
 - d) none of these
2. Energy in a capacitor stored in the form of []
 - a) $0.5 CV^2$
 - b) $5CV^2$
 - c) $5CV$
 - d) $0.5CV$
3. Law stating that "force is directly proportional to product of charges and inversely proportional to square of separation between them" is called[]
 - a) Newton's law
 - b) Gauss's law
 - c) Coulomb's law
 - d) Biot-Savart's law
4. Two positive charges $Q_1 = 16 C$ and $Q_2 = 4 C$. separated by a diameter of 3 m will produce force of[]
 - a) 40N
 - b) 41.1N
 - c) 42.3N
 - d) -41.1N
5. Printer that uses electric charges is called []
 - a) Inkjet Printer
 - b) LASER Jet printer
 - c) desk jet printer
 - d) both a and b
6. The magnetostatics highly relies on which property?[]
 - a) Resistance
 - b) Inductance
 - c) Capacitance
 - d) Moment
7. Find the magnetic field when the magnetic vector potential is a unit vector.[]
 - a) 1

- b) -1
c) 0
d) 2
8. Find the force experienced by an electromagnetic wave in a conductor? []
a) Electrostatic force
b) Magnetostatic force
c) Electromotive force
d) Lorentz force
9. Find the current when the charge is a time function given by $q(t) = 3t + t^2$ at 2 seconds. []
a) 3
b) 5
c) 7
d) 9
10. The charge build up in a capacitor is due to []
a) convection current density
b) conduction current density
c) displacement current density
d) magnetization

Fill in the blanks.

11. -----the electric potential for an electric field 3units at a distance of 2m.
12. -----the magnetic field intensity due to a toroid of turns 50, current 2A and radius 159mm.
13. -----the magnetic field intensity when the magnetic vector potential $x i + 2y j + 3z k$.
14. $\int H \cdot dl$ equals to -----
15. ----- the capacitance of a material in air with area 20 units and distance between plates is 5m.
16. The relationship between magnetic field intensity and magnetic flux density is -----
17. The unit of electric flux density -----
18. Mathematical closed surface is also called -----
19. The unit of permeability and permittivity ----- and -----respectively.
20. Lightning is the discharge of -----generated in clouds by natural processes.

*****ALL THE BEST*****


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Sri Indu Institute of Engineering & Technology
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSIGNMENT- 1 SUBJECT: ELECTROMAGNETICS AND TRANSMISSIONS LINES

1	Two uniform line charges of density 8nC/m are located in a plane with $y = 0$ at $x = \pm 4\text{m}$. Find the E- field at a point $P(0\text{m}, 4\text{m}, 10\text{m})$	C311.1	knowledge
2	Find the force on a $100\mu\text{C}$ charge at $(0, 0, 3)\text{m}$ if four like charges of $20\mu\text{C}$ are located on x and y axes at $\pm 4\text{m}$.	C311.1	Application
3	In a cylindrical conductor of radius 2mm , the current density varies with distance from the axis according to $J = 103 e^{-400\rho} \text{ A/m}^2$. Find the total current I .	C311.1	Application
4	Two conducting planes are located at $z=0$ and 6 mm . In the region $0 < z < 2\text{ mm}$, there is a perfect dielectric for which $\epsilon r_1=2$; for $2 < z < 5\text{ mm}$, let $\epsilon r_2=5$. Find the capacitance per square meter of surface area if the region for which $5 < z < 6\text{ mm}$ is a) air; b) ϵr_1 c) ϵr_2	C311.2	Application
5	A very long solenoid with $2 \times 2\text{ cm}$ cross section has an iron core ($\mu r=1000$) and 4000 turns per meter. It carries a current of 500 mA . Find the following (i) its self-inductance per meter (ii) The energy per meter stored in its field.	C311.3	Application
6	A circular loop located on $x^2+y^2= 9, z = 0$ carries a direct current of 10 A along ϕ . Determine H at $(0, 0, 4)$ and $(0, 0, -4)$.	C311.2	Evaluation


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Sri Indu Institute of Engineering & Technology

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Set - I

II - Mid Examinations, Nov -2019

Year & Branch: III ECE A, B & C

Date: 22.11.2019 F.N.

Subject: EMTL

Max. Marks: 10

Time: 60 mins

Answer any **TWO** Questions. All Question Carry Equal Marks 2*5=10 marks

(This question paper is prepared with Course Outcome and BT's mapping)

1. What are the wave equations for a lossless medium and a conducting medium for sinusoidal variations? (5M) (C311.3) (Synthesis)
2. write short notes on normal incidence of a plane wave on a perfect dielectric? (5M) (C311.3) (Knowledge)
3. The propagation constant of a lossy transmission line is $(1+j2)m^{-1}$ and its characteristic impedance is 20 ohms at $\omega=1M$ rad/s. Find L, C, R and G for the line? (5M) (C311.4) (Evaluation)
4. (a) How can ultra high frequency transmission lines be used as circuit elements? (3M) (C311.5) (Application)
(b) What are the applications of smith chart? (2M) (C311.5) (Synthesis)


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SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Electromagnetic Waves & Transmission Lines
(Objective Exam)

B.TECH III YEAR, I SEM, II MID-TERM EXAMS, Nov-2019.

ROLL NO: NAME: _____ MARKS:

Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Max Marks: 10

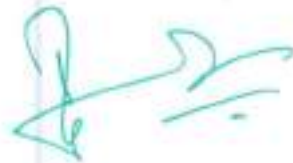
I. Choose the correct alternative:

1. The range of reflection coefficient is..... []
a. 0 to 1 b. 0 to infinity c. -1 to 1 d. 1 to infinity
2. Electric and magnetic fields which are parallel []
a. Constitute power flow b. Constitute infinite power flow
c. Constitute unit magnitude power flow d. No power flow
3. If the reflection coefficient is $-1/2$ then SWR is..... []
a. Zero b. One c. $1/3$ d. 3
4. For any dielectric material $(\sigma/\omega\epsilon)$ value is..... []
a. $\ll 1$ b. $\gg 1$ c. $= 1$ d. Zero
5. Characteristic impedance of transmission line is given by the expression..... []
a. $Z_0 = \sqrt{(R + j\omega L)(G + j\omega C)}$ b. $Z_0 = (R + j\omega L)(G + j\omega C)$
c. $Z_0 = \sqrt{(G + j\omega L)(R + j\omega C)}$ d. $Z_0 = \sqrt{(C + j\omega L)(R + j\omega C)}$
6. In a loss less line, the characteristic impedance is given by..... []
a. Z_0 b. Z_{oc} c. Z_{sc} d. None
7. A line becomes distortion less if..... []
a. It is properly matched b. It is terminated into Z_0 c. $LG=RC$ d. None

8. The input impedance of a $\lambda/8$ long lossless transmission line is..... []
- a. Zero b. Resistive c. Inductive d. Capacitive
9. Characteristic impedance of a lossless line is equal to..... []
- a. \sqrt{LC} b. $1/\sqrt{L/C}$ c. $\sqrt{L/C}$ d. $\sqrt{C/L}$
10. In a transmission line loading is a process of..... []
- a. Artificially increase the inductance in the line b. Decrease in inductance of the line
- c. Increasing shunt capacitance of the line d. Increasing resistance of the line

Fill in the blanks

1. The loss tangent value for a good conductor is.....
2. Write the expression for reflection coefficient of a perfect dielectric surface when the wave incident normal to the boundary.....
3. Brewster angle when the wave is parallel polarized is.....
4. The critical angle for a wave propagating from Teflon($\epsilon_r=4$) into free space is.....
5. The VSWR lies in the range of.....
6. For a short circuited line, the impedance is given by.....
7. A pure resistance R_L when connected at the load end of a lossless 50Ω line produces a VSWR of 2. when R_L may be.....
8. The characteristic impedance of a distortion less line is.....
9. In smith chart problems, clockwise movement along constant S circles indicates.....
10. The reflection coefficient on a lossless line is.....



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Sri Indu Institute of Engineering & Technology
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSIGNMENT 2:

SUJECT: EMTL

1	Find skin depth and surface resistance of a copper conductor at 100 MHz having Conductivity $\sigma=5.8 \times 10^7 \text{ S/m}$ and $\mu_r=100$.	C311.4	knowledge
2	A distortionless line at 150 MHz has $Z_0= 75 \Omega$, $\alpha= 0.06 \text{ Np/m}$ and $u = 2.8 \times 10^8 \text{ m/s}$. Calculate the line parameters R, G, C and L.	C311.4	Application
3	An air line has a characteristic impedance of 70Ω and a phase constant of 3 rad /m at 100 MHz .Calculate the inductance per meter and the capacitance per meter of the line.	C311.3	Application
4	Determine the shortest length of a $42\text{-}\Omega$ air line required to produce a reactance of $j75 \Omega$ at 1 MHz if the line is (i) Shorted (ii) Open	C311.5	Evaluation
5	A 75Ω transmission line is terminated by a load of $120+j80 \Omega$. Find (i) Reflection coefficient and standing wave ratio (ii) Determine how far from the load is the input impedance purely resistive.	C311.5	Application


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I- Mid Examinations, SEPT-2019

Year & Branch : II ECE
laboratory : Basic Simulation

Max. Marks: 10

Date: 16/09/2019 (FN)
Time: 60 mins

-
1. Write a Matlab program for the basic operations on matrices. 10M Application
 2. Write a Matlab program for the generation various signals and sequences 10M Application
 3. Write a Matlab program for the operations on signals and sequences 10M Application
 4. Write a Matlab program for finding the even and odd part of signal. 10M Application
 5. Write a Matlab program for finding real and imaginary parts of the signal. 10M Application
 6. Write a Matlab program for the convolution for signals and sequences. 10M Application
 7. Write a Matlab program for auto-correlation for signals and sequences. 10M Application
 8. Write a Matlab program for cross-correlation for signals and sequences 10M Application


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II- Mid Examinations, NOV-2019

Year & Branch: II ECE(A,B&C)

Date: 25/11/2019(FN)

LABORATORY : Basic Simulation

Max. Marks: 10

Time: 60 mins

-
1. Write a Matlab program for the verification of linearity and time invariance properties of a given discrete and continuous system. 10M Application
 2. Write a Matlab program for the gibbs phenomenon simulation. 10M Application
 3. Write a Matlab program for waveform synthesis using laplace transform. 10M Application
 4. Write a Matlab program for sampling theorem 10M Application
 5. Write a Matlab program for removal of noise by auto-correlation. 10M Application
 6. Write a Matlab program for removal of noise by cross-correlation. 10M Application
 7. Write a Matlab program for verification of weiner-khinchine relations. 10M Application
 8. Write a Matlab program for Finding the Fourier Transform of a given signal and plotting its magnitude and phase spectrum. 10M Application


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[Formerly RVR Institute of Engineering & Technology]

Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S - 501510.

Phone : Office : 9640590999, 9347187999, 8096951507

Dr. I. Satyanarayana
M.Tech(IIT-KGP), Ph.D., FIE., MISTE., MISHMT.
Principal

Dated: 20.09.2019

To, G. Sai Harshitha D/o G.L.H. Sarma

III B.TECH (ECE)

ITX31A0444

Dear Parent /Guardian,

I, the principal of this Institution wishes to inform you the details of attendance and progress of your ward who has been admitted in III B.Tech I Sem during this academic year 2019-20.

The class work has been regular and serious since the beginning and we are providing our best and dedicated services to the student community. Most of the students are also working to the best of their abilities.

The attendance and performance of your ward is given below. As per JNTU academic regulation on attendance a student has to put in a **minimum of 75% attendance**. Otherwise he / she will be **DETAINED** in End Examinations and has to repeat the III B.Tech I Sem class work to fulfill the academic regulation on attendance. You are requested to advice him / her accordingly for the improvement and fulfillment of University Norms. Feel free to contact Concern HOD / PRINCIPAL.

Subject	Attendance as on 10-09-2019 Number of classes		I - Mid Term Examinations
	Held	Attended	Max. Marks 25
ELECTROMAGNETIC THEORY AND TRANSMISSION LINES	35	31	19
LINEAR AND DIGITAL IC APPLICATIONS	30	27	21
DIGITAL COMMUNICATIONS	33	32	24
FUNDAMENTALS OF MANAGEMENT	25	23	23
OPERATING SYSTEMS	25	21	20
PROFESSIONAL ETHICS	33	32	20
LINEAR IC APPLICATIONS LAB	21	18	25
DIGITAL IC APPLICATIONS LAB	21	21	24
DIGITAL COMMUNICATIONS LAB	24	24	24

His / Her attendance is 92.71% and is Poor / Average / Good / Excellent.

His / Her Performance in internal tests is 88.88 % Poor / Average / Good / Excellent.

NOTE : If your son / Daughter did not secured 75% Attendance, by the end of the semester He / She is not permitted to write JNTU Examination.

HOD/ECE

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Phone : Office : 9640590999, 9347187999, 8096951507

Dr. I. Satyanarayana
M.Tech(IIT-KGP), Ph.D., FIE, MISTE, MISHMT.
Principal

Dated: 30.11.2019

To, K. Manaswini D/o K. Venkateshwaslu

III B.TECH (ECE)

17X31A0450

Dear Parent /Guardian,

I, the principal of this Institution wishes to inform you the details of attendance and progress of your ward who has been admitted in III B.Tech I Sem during this academic year 2019-20.

The class work has been regular and serious since the beginning and we are providing our best and dedicated services to the student community. Most of the students are also working to the best of their abilities.

The attendance and performance of your ward is given below. As per JNTU academic regulation on attendance a student has to put in a minimum of 75% attendance. Otherwise he / she will be **DETAINED** in End Examinations and has to repeat the III B Tech I Sem class work to fulfill the academic regulation on attendance. You are requested to advise him / her accordingly for the improvement and fulfillment of University Norms. Feel free to contact Concern HOD / PRINCIPAL.

Subject	Attendance as on 21-11-2019		II - Mid Term Examinations
	Held	Attended	Max. Marks 25
ELECTROMAGNETIC THEORY AND TRANSMISSION LINES	36	32	20
LINEAR AND DIGITAL IC APPLICATIONS	40	36	21
DIGITAL COMMUNICATIONS	39	37	22
FUNDAMENTALS OF MANAGEMENT	39	37	22
OPERATING SYSTEMS	39	34	21
PROFESSIONAL ETHICS	25	22	24
LINEAR IC APPLICATIONS LAB	18	12	24
DIGITAL IC APPLICATIONS LAB	21	21	23
DIGITAL COMMUNICATIONS LAB	21	21	23

His / Her attendance is 90.64 % and is Poor / Average / Good / Excellent.

His / Her Performance in internal tests is 88.88 % Poor / Average / Good / Excellent.

NOTE : If your son / Daughter did not secured 75% Attendance, by the end of the semester He / She is not permitted to write JNTU Examination.


HOD ECE


PRINCIPAL
Sri Indu Institute of Engineering & Tech.
Sheriguda(VIII), Ibrahimpatnam,
R. R. Dist. Telangana -501 510



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad.
[Formerly RVR Institute of Engineering & Technology]
Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S – 501510.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MAJOR PROJECT REVIEW-I

Academic Year : 2019-20

Year : IV

Sem : II

Branch : ECE

Section : A

S.NO	Hall ticket NO	Name Of the Student	Project Title	Dress Code (5M)	Present ation (5M)	Project (5M)	Viva (10M)	Total (25M)
1	16X31A0402	A VAMSHI	Implementation of advanced boarder security system	5	5	5	7	22
2	16X31A0403	ADMALA ANKITHA REDDY	IOT Based underground cable fault detection system	3	3	3	6	15
3	16X31A0404	AEDLA RAJESH	Implementation of advanced boarder security system	5	4	5	8	22
4	16X31A0405	AGARWAL JYOTHI	smart shopping system	5	5	5	8	23
5	16X31A0406	AINALA VINAY	Speaking Micro controller for deaf and dumb	5	4	4	7	20
6	16X31A0407	ALAVALA SRAVYA	smart shopping system	5	5	4	8	22
7	16X31A0411	ARUVA ARAVIND	IOT based digital notice board	5	5	5	6	21
8	16X31A0412	B SARASWATHI	IOT based digital notice board	3	3	3	5	14
9	16X31A0413	B VAKULITHA	Intruder detection	3	3	3	6	15
10	16X31A0415	BADUGULA YASHASWINI	Intruder detection	5	4	5	6	21
11	16X31A0416	BANAVATH RAMESH NAIK	Advanced gesture controlled robot for handicapped people	4	4	4	7	19
12	16X31A0418	BANDARU YASHWANTH SAI	Intruder detection	5	5	5	10	25
13	16X31A0419	BASHUTHKAR SRAVANI	IOT based digital notice board	5	5	5	6	21
14	16X31A0421	BESAM VINAY KUMAR REDDY	IOT based digital notice board	4	4	4	7	19
15	16X31A0422	BERANGI SASHIKALA	smart shopping system	5	5	5	10	25
16	16X31A0423	BETHI LAKSHMI	A real time flood alerting unit using parking IOTS	5	5	5	9	24

		PRIYA						
17	16X31A0424	BODIGE PAVAN KUMAR	A real time flood alerting unit using parking IOTS	4	5	5	8	22
18	16X31A0425	BOKKA SWATHI REDDY	IOT Based underground cable fault detection system	4	4	4	6	18
19	16X31A0426	BUSIREDDY MUKUNDAREDDY	Smart parking management system	5	4	5	5	19
20	16X31A0427	CHERIPALLY RAMAN	IOT Based underground cable fault detection system	5	4	5	8	22
21	16X31A0428	CHERUKU SHRUTHI	IOT based digital notice board	5	4	5	7	21
22	16X31A0432	D SAIVIVEK	RFID based student attendance monitoring system	5	4	5	5	19
23	16X31A0433	DEEPTHI RAMESH POGULA	IOT Based underground cable fault detection system	5	5	5	7	22
24	16X31A0434	DHANABOYENA NAVYA	Speaking Micro controller for deaf and dumb	5	5	5	10	25
25	16X31A0435	DHARMAPURI VARUN KUMAR	A real time flood alerting unit using parking IOTS	5	5	5	9	24
26	16X31A0437	E.SHARATHKUMAR	RFID based student attendance monitoring system	5	5	5	4	19
27	16X31A0439	ESLAVATH GANESH	Implementation of advanced boarder security system	5	5	5	5	20
28	16X31A0440	G GIRISH	Speaking Micro controller for deaf and dumb	5	5	5	7	22
29	16X31A0442	G SRAVANI	Speaking Micro controller for deaf and dumb	5	5	5	9	24
30	16X31A0443	G CHANDRASHEKAR REDDY	Smart parking management system	5	5	5	6	21
31	16X31A0444	GAJELA MADHU SUDHAN	Implementation of advanced boarder security system	5	5	5	10	25
32	16X31A0445	GALWA BHARATH KUMAR	Advanced gesture controlled robot for handicapped people	5	5	5	5	20
33	16X31A0446	GANGADHARI GANESH	RFID based student attendance monitoring system	4	5	5	5	19
34	16X31A0447	GARIGE DURGA AKSHAYA	RFID based student attendance monitoring system	5	5	4	9	23
35	16X31A0448	GARIGE PRAVALIKA	smart shopping system	5	5	5	10	25
36	16X31A0449	GATTU MADHAVA CHARYULU	smart shopping system	5	5	5	8	23
37	16X31A0452	GONA TEJA	Intruder detection	5	4	4	9	22
38	16X31A0453	GOPIREDDY MOUNIKA	A real time flood alerting unit using parking IOTS	5	5	5	8	23
39	16X31A0455	GOURISHETTY SUSHANTH	Smart parking management system	5	4	5	8	22
40	16X31A0456	GUBBA SRIKANTH	IOT Based underground cable fault detection system	5	5	5	10	25

41	16X31A0457	GUNDAMOUNI MADHURI GOUD	Smart parking management system	5	5	5	7	22
42	16X31A0458	GUNDLAPALLI CHANDANA	Advanced gesture controlled robot for handicapped people	5	5	5	9	24
43	16X31A0459	GUNNAM KEERTHI REDDY	Smart parking management system	5	5	5	10	25
44	16X31A0460	GUNTI KAVYA	Advanced gesture controlled robot for handicapped people	5	5	5	10	25


Panel Member -1


Panel Member -2


Project Co-Ordinator


HOD



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad.

[Formerly RVR Institute of Engineering & Technology]

Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S – 501510.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MAJOR PROJECT REVIEW-2

Academic Year : 2019-20

Year : IV

Sem : II

Branch : ECE

Section : A

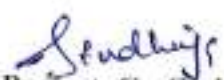
S.NO	Hall ticket NO	Name Of the Student	Project Title	Dress Code (5M)	Present ation (5M)	Project (5M)	Viva (10M)	Total (25M)
1	16X31A0402	A VAMSHI	Implementation of advanced boarder security system	5	5	4	8	22
2	16X31A0403	ADMALA ANKITHA REDDY	IOT Based underground cable fault detection system	3	4	3	5	15
3	16X31A0404	AEDLA RAJESH	Implementation of advanced boarder security system	5	5	5	7	22
4	16X31A0405	AGARWAL JYOTHI	smart shopping system	5	5	5	8	23
5	16X31A0406	AINALA VINAY	Speaking Micro controller for deaf and dumb	5	5	5	5	20
6	16X31A0407	ALAVALA SRAVYA	smart shopping system	5	5	5	7	22
7	16X31A0411	ARUVA ARAVIND	IOT based digital notice board	5	5	5	6	21
8	16X31A0412	B SARASWATHI	IOT based digital notice board	4	4	4	2	14
9	16X31A0413	B VAKULITHA	Intruder detection	4	4	4	3	15
10	16X31A0415	BADUGULA YASHASWINI	Intruder detection	5	5	5	6	21
11	16X31A0416	BANAVATH RAMESH NAIK	Advanced gesture controlled robot for handicapped people	5	4	5	5	19
12	16X31A0418	BANDARU YASHWANTH SAI	Intruder detection	5	5	5	10	25
13	16X31A0419	BASHUTHKAR SRAVANI	IOT based digital notice board	5	5	5	6	21
14	16X31A0421	BESAM VINAY KUMAR REDDY	IOT based digital notice board	5	5	5	4	19
15	16X31A0422	BERANGI SASHIKALA	smart shopping system	5	5	5	10	25
16	16X31A0423	BETHI LAKSHMI	A real time flood alerting unit using parking IOTS	5	5	5	9	24

		PRIYA							
17	16X31A0424	BODIGE PAVAN KUMAR	A real time flood alerting unit using parking IOTS	5	5	5	7	22	
18	16X31A0425	BOKKA SWATHI REDDY	IOT Based underground cable fault detection system	5	4	4	5	18	
19	16X31A0426	BUSIREDDY MUKUNDAREDDY	Smart parking management system	5	4	4	6	19	
20	16X31A0427	CHERIPALLY RAMAN	IOT Based underground cable fault detection system	5	5	4	8	22	
21	16X31A0428	CHERUKU SHRUTHI	IOT based digital notice board	5	5	4	7	21	
22	16X31A0432	D SAIVIVEK	RFID based student attendance monitoring system	5	5	4	5	19	
23	16X31A0433	DEEPTHI RAMESH POGULA	IOT Based underground cable fault detection system	5	5	5	7	22	
24	16X31A0434	DHANABOYENA NAVYA	Speaking Micro controller for deaf and dumb	5	5	5	10	25	
25	16X31A0435	DHARMAPURI VARUN KUMAR	A real time flood alerting unit using parking IOTS	5	5	5	9	24	
26	16X31A0437	E.SHARATHKUMAR	RFID based student attendance monitoring system	5	5	4	5	19	
27	16X31A0439	ESLAVATH GANESH	Implementation of advanced boarder security system	5	5	5	5	20	
28	16X31A0440	G GIRISH	Speaking Micro controller for deaf and dumb	5	5	5	7	22	
29	16X31A0442	G SRAVANI	Speaking Micro controller for deaf and dumb	5	5	5	9	24	
30	16X31A0443	G CHANDRASHEKAR REDDY	Smart parking management system	5	5	4	7	21	
31	16X31A0444	GAJJELA MADHU SUDHAN	Implementation of advanced boarder security system	5	5	5	10	25	
32	16X31A0445	GALWA BHARATH KUMAR	Advanced gesture controlled robot for handicapped people	5	5	3	7	20	
33	16X31A0446	GANGADHARI GANESH	RFID based student attendance monitoring system	5	5	4	5	19	
34	16X31A0447	GARIGE DURGA AKSHAYA	RFID based student attendance monitoring system	5	5	4	9	23	
35	16X31A0448	GARIGE PRAVALIKA	smart shopping system	5	5	5	10	25	
36	16X31A0449	GATTU MADHAVA CHARYULU	smart shopping system	5	5	4	9	23	
37	16X31A0452	GONA TEJA	Intruder detection	5	5	5	7	22	
38	16X31A0453	GOPIREDDY MOUNIKA	A real time flood alerting unit using parking IOTS	5	5	5	8	23	
39	16X31A0455	GOURISHETTY SUSHANTH	Smart parking management system	5	5	5	7	22	
40	16X31A0456	GUBBA SRIKANTH	IOT Based underground cable fault detection system	5	5	5	10	25	

41	16X31A0457	GUNDAMOUNI MADHURI GOUD	Smart parking management system	5	5	5	7	22
42	16X31A0458	GUNDLAPALLI CHANDANA	Advanced gesture controlled robot for handicapped people	5	5	5	9	24
43	16X31A0459	GUNNAM KEERTHI REDDY	Smart parking management system	5	5	5	10	25
44	16X31A0460	GUNTI KAVYA	Advanced gesture controlled robot for handicapped people	5	5	5	10	25


Panel Member -1


Panel Member -2


Project Co-Ordinator


HOD



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

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 [Formerly RVR Institute of Engineering & Technology]
 Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S – 501510.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINI-PROJECT EVALUATION

Academic Year: 2019-20

Year: IV

Sem: I

Branch: ECE

Section: A

S.No	Hall ticket No	Name Of the Student	REVIEW-I				REVIEW-II				AVERAGE
			Knowledge(20M)	Presentation (20M)	Viva (10M)	Total (A)	Knowledge(20M)	Presentation (20M)	Viva (10M)	Total (B)	Average(A+B)/2
1	16X31A0402	A VAMSHI	18	19	10	47	17	17	7	41	44
2	16X31A0403	ADMALA ANKITHA REDDY	18	18	8	44	18	20	10	48	46
3	16X31A0404	AEDLA RAJESH	17	18	7	42	15	17	8	40	41
4	16X31A0405	AGARWAL JYOTHI	15	20	8	43	15	17	9	41	42
5	16X31A0406	AINALA VINAY	19	19	10	48	18	18	9	45	47
6	16X31A0407	ALAVALA SRAVYA	18	19	10	47	20	20	8	48	48
7	16X31A0411	ARUVA ARAVIND	19	20	9	48	18	19	9	46	47
8	16X31A0412	B SARASWATHI	19	19	9	47	16	19	8	43	45
9	16X31A0413	B VAKULITHA	19	18	9	46	18	19	9	46	46
10	16X31A0415	BADUGULA YASHASWINI	18	18	9	45	16	17	8	41	43
11	16X31A0416	BANAVATH RAMESH NAIK	18	18	10	46	19	18	8	45	46
12	16X31A0418	BANDARU YASHWANATH SAI	19	19	8	46	18	18	10	46	46
13	16X31A0419	BASHUTHKAR SRAVANI	19	19	8	46	19	20	10	49	48
14	16X31A0421	BESAM VINAY KUMAR REDDY	18	18	9	45	18	19	10	47	46
15	16X31A0422	BERANGI SASHIKALA	19	18	9	46	20	20	9	49	48
16	16X31A0423	BETHI LAKSHMI PRIYA	19	19	10	48	15	19	9	43	46

17	16X31A0424	BODIGE PAVAN KUMAR	17	19	9	45	15	17	8	40	43
18	16X31A0425	BOKKA SWATHI REDDY	19	20	9	48	20	20	9	49	49
19	16X31A0426	BUSIREDDY MUKUNDAREDDY	18	16	7	41	15	19	9	43	42
20	16X31A0427	CHERIPALLY RAMAN	19	20	7	46	17	17	8	42	44
21	16X31A0428	CHERUKU SHRUTHI	18	19	9	46	18	19	10	47	47
22	16X31A0432	D SAIVIVEK	18	15	8	41	17	19	8	44	43
23	16X31A0433	DEEPTHI RAMESH POGULA	20	20	9	49	19	20	10	49	49
24	16X31A0434	DHANABOYENA NAVYA	20	19	10	49	19	19	10	48	49
25	16X31A0435	DHARMAPURI VARUN KUMAR	20	20	9	49	20	20	9	49	49
26	16X31A0437	E.SHARATHKUMAR	17	16	8	41	18	18	9	47	44
27	16X31A0439	ESLAVATH GANESH	18	17	10	45	19	19	10	48	47
28	16X31A0440	G GIRISH	16	17	8	41	17	19	9	45	43
29	16X31A0442	G SRAVANI	18	19	8	45	20	19	10	49	47
30	16X31A0443	G CHANDRASHEKAR REDDY	17	20	9	46	19	20	10	49	48
31	16X31A0444	GAJJELA MADHU SUDHAN	20	19	9	48	17	19	9	45	47
32	16X31A0445	GALWA BHARATH KUMAR	20	19	9	48	19	19	9	47	48
33	16X31A0446	GANGADHARI GANESH	15	19	8	42	19	19	10	49	46
34	16X31A0447	GARIGE DURGA AKSHAYA	18	17	10	45	18	19	9	46	46
35	16X31A0448	GARIGE PRAVALIKA	15	16	7	37	18	17	9	44	41
36	16X31A0449	GATTU MADHAVA CHARYULU	17	18	6	41	19	18	9	46	44
37	16X31A0452	GONA TEJA	19	20	9	48	17	18	8	43	46
38	16X31A0453	GOPIREDDY MOUNIKA	14	16	6	36	19	18	10	47	42
39	16X31A0455	GOURISHETTY SUSHANTH	17	19	8	44	19	17	9	45	45
40	16X31A0456	GUBBA SRIKANTH	16	12	8	36	17	19	9	45	41
41	16X31A0457	GUNDAMOUNI MADHURI GOUD	20	20	9	49	14	15	8	37	43
42	16X31A0458	GUNDLAPALLI CHANDANA	18	19	10	47	19	20	10	49	48
43	16X31A0459	GUNNAM KEERTHI REDDY	13	15	7	35	20	20	9	49	42
44	16X31A0460	GUNTI KAVYA	14	16	7	37	13	17	8	38	38


Panel Member -1


Panel Member -2


Project Co-Ordinator


HOD



SRI INDU INSTITUTE OF ENGINEERING & TECHNOLOGY

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[Formerly RVR Institute of Engineering & Technology]

Sheriguda (V), Ibrahimpatnam (M), R. R. District, T.S – 501510.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SEMINAR EVALUATION

Academic Year : 2019-20

Year : IV

Sem : I

Branch : ECE

Section : A

S.No	Hall ticket NO	Name Of the Student	Topic, Content and Work (20M)	Knowledge & Participation (20M)	Presentation (30M)	Dress Code (10M)	Viva (20M)	Total (100M)
1	16X31A0402	A VAMSHI	15	15	25	08	17	80
2	16X31A0403	ADMALA ANKITHA REDDY	15	15	24	04	17	75
3	16X31A0404	AEDLA RAJESH	19	19	27	09	13	87
4	16X31A0405	AGARWAL JYOTHI	19	19	28	09	15	90
5	16X31A0406	AINALA VINAY	19	18	25	09	13	84
6	16X31A0407	ALAVALA SRAVYA	19	18	25	09	15	86
7	16X31A0411	ARUVA ARAVIND	14	14	20	06	14	68
8	16X31A0412	B SARASWATHI	14	13	15	05	11	58
9	16X31A0413	B VAKULITHA	15	14	26	08	17	80
10	16X31A0415	BADUGULA YASHASWINI	20	18	27	08	17	90
11	16X31A0416	BANAVATH RAMESH NAIK	15	14	25	09	17	80
12	16X31A0418	BANDARU YASHWANTH SAI	19	19	28	09	17	92
13	16X31A0419	BASHUTHKAR SRAVANI	19	18	28	09	17	91
14	16X31A0421	BESAM VINAY KUMAR REDDY	16	16	20	08	18	78
15	16X31A0422	BERANGI SASHIKALA	18	19	22	09	20	88
16	16X31A0423	BETHI LAKSHMI PRIYA	19	19	22	09	20	89
17	16X31A0424	BODIGE PAVAN KUMAR	17	17	20	06	18	78
18	16X31A0425	BOKKA SWATHI REDDY	18	19	21	06	18	82
19	16X31A0426	BUSIREDDY MUKUNDAREDDY	17	17	20	06	15	75
20	16X31A0427	CHERIPALLY RAMAN	17	17	20	06	14	74

21	16X31A0428	CHERUKU SHRUTHI	19	19	28	09	15	90
22	16X31A0432	D SAIVIVEK	14	14	23	07	12	70
23	16X31A0433	DEEPTHI RAMESH POGULA	18	18	26	08	15	85
24	16X31A0434	DHANABOYENA NAVYA	19	19	28	09	15	90
25	16X31A0435	DHARMAPURI VARUN KUMAR	19	19	28	08	16	90
26	16X31A0437	E.SHARATHKUMAR	08	08	18	03	00	37
27	16X31A0439	ESLAVATH GANESH	18	18	25	08	20	89
28	16X31A0440	G GIRISH	15	15	24	08	18	80
29	16X31A0442	G SRAVANI	17	17	28	08	20	90
30	16X31A0443	G CHANDRASHEKAR REDDY	16	16	25	09	15	81
31	16X31A0444	GAJJELA MADHU SUDHAN	19	19	28	09	20	95
32	16X31A0445	GALWA BHARATH KUMAR	14	14	23	09	15	75
33	16X31A0446	GANGADHARI GANESH	14	14	26	09	15	78
34	16X31A0447	GARIGE DURGA AKSHAYA	14	14	28	09	15	80
35	16X31A0448	GARIGE PRAVALIKA	19	19	28	09	19	94
36	16X31A0449	GATTU MADHAVA CHARYULU	19	19	28	09	20	95
37	16X31A0452	GONA TEJA	19	19	23	09	16	86
38	16X31A0453	GOPIREDDY MOUNIKA	19	19	28	09	17	92
39	16X31A0455	GOURISHETTY SUSHANTH	18	18	25	09	17	85
40	16X31A0456	GUBBA SRIKANTH	14	14	25	09	17	79
41	16X31A0457	GUNDAMOUNI MADHURI GOUD	14	14	23	09	15	75
42	16X31A0458	GUNDLAPALLI CHANDANA	14	14	28	09	15	80
43	16X31A0459	GUNNAM KEERTHI REDDY	19	19	28	09	15	90
44	16X31A0460	GUNTI KAVYA	19	19	28	09	16	91


Panel Member -1


Panel Member -2


Seminar Co-Ordinator


HOD