FOREWORD

Hyderabad Institute of Technology and Management (HITAM) is an Engineering College situated in a sprawling lush, green campus at Medchal in Telangana State, India. HITAM was established in 2001 and is the **First LEED certified Silver rated Green Building Educational Institution in India by US Green Building Council**.

This institution sought to impart qualitative education in the field of Engineering. Transformation at HITAM does not stop with mere physical infrastructure; it extended far beyond. It has manifested as best practices, which have evolved with continuous refinement, be it in education, embracing eco-consciousness, facilitating career planning and ensuring faculty development, all from a perspective of overall growth of its students and faculty.

HITAM is recognized by AICTE New Delhi and is affiliated to JNTUH, Hyderabad. HITAM is built in a Sprawling beautiful campus in 7.7 Acres lush green landscape. Possess excellent infrastructure with state-of-the-art facilities in 14744 square meters of built-up area. Unlike most colleges, HITAM believes that their only objective is just not to help its students secure a degree. Though that is an essential deliverable for any institution, we believe that we cannot confine ourselves to that goal alone, but need to look beyond. HITAM believes that the years spent at its campus by its students are extremely impactful as that period witnesses their transformation from adolescence to adulthood. Therefore, the college constantly endeavors to shape their attitude and personality to help them emerge as remarkable individuals when they leave the portals of this institution.

With a deep understanding of students and faculty mind sets gleaned more than a decade, we have devised a set of best practices to promote a culture of continuous learning and winning both among our students and staff. We are sure that these would help them immensely in unravelling their true calling in their journey of life. HITAM in it vision "contribution to society" initiated various societal development programs by promoting "Service Learning" in students through Engineering Practice in Community Service (EPICS) and an NGO named "Palle Srujana".

Vision:
"To be a University which nurtures the students with competencies to become confident about their careers and contribute to the society".

Mission:

- To build capabilities of faculty for facilitating courses with innovative pedagogy
- To enrich the programs with relevant and updated curriculum
- To progress by adopting the best practices to the workforce needs as per emerging trends.
- To provide industry interface for faculty and students to work on projects with end goal of real time knowledge.

Quality Policy:

The autonomous regulations, course structure and syllabi have been framed in accordance with the vision and mission of the institution along with certain valuable suggestions from professionals of various ancillary fields such as the Academicians from IIT's, Universities and reputed organizations along with advisors from the industry and the research, all with a noble vision to impart quality technical education and contribute in catering full-fledged engineering graduates to the society.

All the stake holders' suggestions are considered while framing these guidelines and their suggestions are considered. Their cooperation is sought for the successful implementation of the autonomous system in the larger interests of the institution and for brightening the career prospects of engineering graduates.

PRINCIPAL

<div align="center">

Academic Regulations (HR 21)
B. Tech. - Regular Four-Year Degree Programme
(For batches admitted from the academic year 2021 - 22)
&
B. Tech. - Lateral Entry Scheme
(For batches admitted from the academic year 2022 - 23)

</div>

PREAMBLE

For pursuing four years undergraduate Bachelor Degree Programme in Engineering (B. Tech.) offered by **Hyderabad Institute of Technology and Management** and Jawaharlal Nehru Technical University Hyderabad (JNTUH) under UGC Autonomous status will herein be referred to as HITAM (Autonomous).

All the specified rules are herein approved by the Academic Council of HITAM(Autonomous) and JNTUH. These rules will be in force and are applicable to students admitted from the Academic Year 2021-22 onwards. Any reference to "Institute" or "College" in these rules and regulations stand for HITAM (Autonomous).

Choice Based Credit System (CBCS) has been adopted by HITAM under affiliation of JNTUH.

All the rules and regulations specified shall hereafter be read as a whole for the purpose of interpretation, as and when a doubt arises, the interpretation of the Chairman, Academic Council with the approval of JNTUH is final. As per the requirements of statutory bodies, the Principal, HITAM (Autonomous) shall be the Chairman, Academic Council.

1.   UNDERGRADUATE PROGRAMS OFFERED (Engineering and Technology)

HITAM (Autonomous), affiliated to JNTUH, offers 4 Year (8 Semesters) **B. Tech** Degree Programme in the following Branches of Engineering under **C**hoice **B**ased **C**redit **System** (CBCS):

1) B. Tech - Electrical & Electronics Engineering: (EEE)
2) B. Tech - Mechanical Engineering: (ME)
3) B. Tech - Electronics and Communication Engineering: (ECE)
4) B. Tech - Computer Science and Engineering: (CSE)
5) B. Tech – CSE - (Artificial Intelligence & Machine Learning): CSM
6) B. Tech - CSE - (Data Science): CSD
7) B. Tech – CSE - (IoT): CSO
8) B. Tech - Computer Science and Engineering (Cyber Security): CSC

2.   ADMISSION CRITERIA AND MEDIUM OF INSTRUCTION

2.1.   Admission into first year of four-year B. Tech (Regular) Degree Programme:

2.1.1.   Eligibility: A candidate seeking admission into the first year of four-year B.Tech Degree Programme should have:

(i)   Passed either Intermediate Public Examination (IPE) conducted by the Board of Intermediate Education, Telangana, with Mathematics, Physics and Chemistry

as optional subjects or any equivalent examination recognized by Board of Intermediate Education, Telangana or a Diploma in Engineering conducted by the Board of Technical Education, Telangana or equivalent Diploma recognized by Board of Technical Education for admission as per guidelines defined by the Regulatory bodies of Telangana State Council for Higher Education (TSCHE) and AICTE.

(ii) Secured a rank in the TSEAMCET examination conducted by TSCHE for allotment of a seat by the Convener, TSEAMCET.

2.1.2. Admission Procedure: Admissions are made into the first year of four-year B. Tech Degree Programme.

(a) Category A: 70% of the seats are filled through TSEAMCET counseling.
(b) Category B: 30% of the seats are filled by the Management as per the stipulations of the TSCHE.

2.2. Admission into the second year of four-year B. Tech (Regular) Degree Programme Under Lateral Entry Scheme.

2.2.1 Eligibility: A candidate seeking admission into the II year I Semester B. Tech. Regular Degree Programme under Lateral Entry Scheme (LES) should have passed the qualifying examination (B.Sc. with Mathematics as a Subject or Diploma in concerned course) and have secured a rank at Engineering Common Entrance Test TSECET (FDH). Admissions are made in accordance with the instructions received from the Convener, TSECET, TSCHE and Government of Telangana State.

2.2.2 Admission Procedure: Admissions are made into the II year of four-year B. Tech (Regular) Degree Programme through Convener, TSECET (FDH) against the sanctioned intake in each Programme of study as lateral entry student.

2.3. Branch Transfers: There shall be no Branch transfers after the completion of Admission Process.

2.4. Medium of Instruction: The Medium of Instruction and Examinations for the entire B. Tech programme will be in **English** only.

3. B. Tech PROGRAMME STRUCTURE

3.1 Admitted under Four Year B. Tech. (Regular) degree Programme:

3.1.1 A student after securing admission shall pursue the under graduate programme in B. Tech. for 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, students shall forfeit their seat in B. Tech course in accordance to JNTUH norms.

3.1.2 As per AICTE guidelines, a 2 week 'Mandatory **Induction Programme'** shall be offered to I - B.Tech. students to acquaint the newly admitted students with the professional environment and prepare them for the academic schedules ahead.

3.1.3 The entire B. Tech. programme is structured for a total of 160 credits. Distribution of credits Semester-wise is available in the respective course structure.

3.1.4 Each student shall register and secure 160 credits (with CGPA ≥ 5) for the completion of the under graduate programme and award of the B. Tech. degree.

3.2 Admitted under Lateral Entry Scheme (LES) into B. Tech. degree Programme:

3.2.1 After securing admission into II-year B. Tech. I Semester, the LES students shall pursue a course of study for not less than three academic years (6 Semesters) and not more than six academic years (12 Semesters), failing which students shall forfeit their seat in B. Tech. programme.

3.2.2 The student shall register and secure **124** credits (with CGPA ≥ 5) from II year to IV-year B. Tech. programme (LES) for the award of B. Tech. degree.

3.3 UGC / AICTE specified definitions / descriptions are adopted appropriately for various terms and abbreviations used in these Academic Regulations / Norms, which are listed:

3.3.1 Semester Scheme: Each B. Tech. (Regular) Programme is of 4 Academic Years (8 Semesters) and B. Tech. (LES) Programme is of 3 Academic Years (6 Semesters)), with the academic year being divided into two semesters of 22 weeks (≥ 90 Instructional days per semester) 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.

3.3.2 Credit Courses:

a) All Subjects / Courses are to be registered by a student in a Semester to earn Credits. Credits shall be assigned to each Subject / Course in a L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) Structure based on the following general pattern:

b)

Theory		Practical	
1 Hr. Lecture (L) per week	1 credit	1 Hr. Practical (P) per week	0.5 credit
1 Hr. Tutorial (T) per week	1 credit	2 Hrs Practical (Lab) per week	1.0 credit

All Mandatory Courses, Audit Courses, Guest Lecture, etc., will not carry any Credits.

c) Contact Hours: Weekly contact hours – maximum of 30 hours per week (i.e. 1 hour = 60 Minutes) including credit and non-credit courses.

3.3.3 Subject / Course Classification and Nomenclature:

HITAM(Autonomous) has followed the guidelines specified by AICTE / UGC / JNTUH. The subjects / courses offered in B. Tech. programme are broadly classified as mentioned below.

S. No.	Category	Breakup of Credits (HITAM)
1	Humanities and Social Sciences including Management courses (HSMC)	**10**
2	Basic Science Courses (BSC)	**21**
3	Engineering Science courses including workshop, drawing, basics of Electrical / Mechanical / Computer etc. (ESC)	**23**
4	Professional core courses (PCC)	**59**
5	Professional Elective courses relevant to chosen specialization / branch (PEC)	**18**
6	Open Electives courses from other technical and /or emerging subjects (OEC)	**12**
7	Project work, seminar and internship in industry or appropriate work place / academic and research institutions in India / abroad (PRJ)	**17**
8	Mandatory Courses with Assessment (MC)	(non-Credit)
9	Audit Courses without Assessment (AC)	(non Credit)
	Total Credits	**160**

4.   COURSE REGISTRATION

4.1   A '**faculty advisor or counselor**' shall be assigned to each student to advise the student about the B. Tech. programme, course structure and curriculum, choice / option for subjects / courses, based on his/her 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 online submission, ensuring '**date** and **time stamping**'. The online 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 **online** registration, which will forwarded 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 and the student.

4.4   A student has to register for all subjects/courses in a semester as specified in the course structure and may be permitted to register one additional theory subject / course limited to 3 credits, based on the student's **progress** with above 8.0 CGPA, and completion of the '**pre-requisites'** as indicated for various subjects/courses, in the department course structure and syllabus contents.

4.5   If the student submits ambiguous choices or multiple options or erroneous (incorrect) entries during **online** 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.

4.6 Subject / course options exercised through **online** registration are final and **cannot** be changed or inter-changed; further, alternate choices will not be considered. However, if the subject / course that has already been listed for registration by 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), which may be considered. Such alternate arrangements will be made by Head of the Department, with due notification and time-framed schedule, within the **first week** from the commencement of class-work for that semester.

4.7 Dropping of additional registered subject / course (refer 4.4) may be permitted only after obtaining prior approval from the faculty advisor / counselor, '**within a period of 15 days**' from the commencement of that semester.

4.8 **Open electives**: Students have to choose one open elective from the group offered to them in the corresponding semester, However, student should not 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.

4.9 **Professional electives**: Students have to choose professional elective from the group offered to them in the corresponding semester in the related area.

4.10 **Mandatory and Audit Courses (Non-Credit):** All mandatory and Audit courses wherever offered require prior registration.

4.11 **B.Tech with Honors in Engineering**:
A student can register for **Honors** Degree program in the discipline he has admitted for B.Tech programme. In order to become eligible to apply for Honors Degree programme, he/she has to acquire minimum 7.5 **CGPA** till the end of the second year, Lateral Entry Students should maintain 7.5 CGPS in the Second Year B.Tech program. A student with backlog at any point of time in the entire duration, shall not be considered to the Honors program.

- A student will be eligible to get B. Tech Degree with Honors if they acquire the additional 20 credits from the parent discipline course structure.
- The additional 20 credits required to attain B. Tech with Honors are offered from III year I semester onwards as decided by the respective board of studies.
- Honors is an additional credential to allow a bright and motivated student to learn additional Vertical/specialization courses in a discipline for Research Orientation. At the end of the second year, a student may decide to opt for Honors based on his interest. Students with CGPA of 7.5 at the end of the second year second semester are eligible for this Honors program.
- If a student drops/terminated from the Honors program, they cannot convert the earned credits into professional core or electives. These extra credits earned will be mentioned in the grade sheet but not in the degree certificate.
- The students have to pay the requisite fee as prescribed by the institute during that period for the additional courses to register for the Honors Degree Programme.
- A student has to complete all the registered additional courses under Honors degree to obtain the same within four-year course of their study.
- The attendance criteria for these courses are same as regular courses and the same rules as mentioned in sl.no 6 are applicable.

- If a student complete only few credits and drops out, a certificate for that credit's completion will be issued by the Institute, however if he completes all the registered 20 credits then an Honors' Degree will be issued in association with the affiliating University.
- The courses registered under Honor's programme can be carried out either through class room lectures or through MOOCs Platform.
- If students opts for MOOCs platform then he/she has to acquire suitable grade equivalent to 7.5 Grade Points and above.
- The Grading for these courses remains same as regular courses.
- A student can register for either Hornor or Minors and not for both.

- **Minor Degree Programme Registration**: A student can register for Minor Degree program in any of the discipline offered by the institute other than the course he has registered for the regular Degree. In order to become eligible to apply for Minor Degree programme, he/she has to acquire minimum **6.5 CGPA** till the end of the second year. Lateral Entry Students should maintain 6.5 CGPS in the Second Year B. Tech Program. A student will be eligible to get B. Tech Degree with Minors if they acquire the additional 18 credits as prescribed under Minor Degree Programmes course structure.
- The additional 18 credits required to attain Minors Degree are offered from III year I semester onwards as decided by the respective board of studies.
- The courses registered under Minor's programme can be carried out either through class room lectures or through MOOCs Platform.
- Minor should be chosen from any other branch/area for improving employability.
- Minors is an additional credential to allow a bright and motivated student to learn additional courses in a discipline other than his own discipline during his undergraduate study. At the end of the second year, a student may decide to opt for minors based on his interest. Students with CGPA of 6.5 at the end of the second year second semester are eligible for this minor program.
- The registrations for each Minor program is restricted to a maximum of 120 and the selection criteria is purely on merit basis.
- If a student drops/terminated from the minor program, they cannot convert the earned credits into open or core electives. These extra credits earned will be mentioned in the grade sheet but not in the degree certificate.
- If a student complete only few credits and drops out, a certificate for that credit's completion will be issued by the Institute, however if he completes all the registered 18 credits then Minor Degree will be issued in association with the affiliating University.
- The students have to pay the requisite fee for the additional courses as prescribed by the institute for that period to register for the Minor Degree Programme.
- A student has to complete all the registered additional courses under minor degree to obtain the same within four-year course of their study.
- The attendance criteria for these courses are same as regular courses and rules as mentioned in sl.no 6 are applicable.
- The Grading for these courses remains same as regular courses.

5.   SUBJECTS / COURSES TO BE OFFERED

5.1   A typical Section (or Class) Strength for each Semester shall be approximately 60. A subject / course may be offered to the students, **if only** a minimum 1/3 of students register to the course. The Maximum Strength of a Section is limited to 80 (60 + 1/3 of the Section Strength).

i) More than **one faculty member** may offer the **same subject** (lab / practical's may be included with the corresponding theory subject in the same semester) in any semester. However, selection 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).

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

6. ATTENDANCE REQUIREMENTS

6.1 A student shall be eligible to appear for the semester end examinations if he/she acquires a minimum of 75% of attendance in aggregate in that semester (excluding the days of midterm examinations).

6.2 Condoning of shortage of attendance is permitted to 10% (65% and above, and below 75%) may be granted by the college academic committee on genuine and valid grounds, based on the student's representation with supporting evidence. However, student needs to apply with the proof as and when availed leave on valid grounds.

6.3 A stipulated fee as prescribed by the institute shall be payable towards condoning of shortage of attendance.

6.4 Shortage of attendance below 65% aggregate shall in **no** case be condoned.

6.5 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.

7. 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 40% marks (28 out of 70 marks) in the semester end examination (SEE), and a minimum of 40% of marks in the internal(12 out of 30 marks) and the sum total of the Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) taken together; in terms of letter grades, this implies securing **C** grade or above in that subject / course.

Students who are not able to clear the Regular exam by scoring the minimum passing marks are required to seek re-registration to those subjects by paying the fees as prescribed by the institution and has to attend min 75% of the backlog clearance classes conducted by the institution before the supplementary exams for that semester, to become eligible for applying and appearing for the supplementary exams of that semester in which student has failed.

7.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to **summer internship and project courses**, if student secures

not less than 40% of the total marks in each of them. The student would be treated as failed, if student does not submit a report on his project(s), or does not make a presentation of the same before the evaluation committee as per the schedule. Student may reappear once for each of the above evaluations, when they are scheduled again; if he fails in such 'one re-appearance' evaluation also, student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

7.3 Promotion Rules

7.3.1 Four-year B. Tech (Regular):

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 (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 48 Credits (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 75 Credits (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.

7.3.2 Four-year B. Tech (LES):

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 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 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.

7.4 A student has to register for all subjects covering 160 credits (124 credits in case of LES) as specified and listed (with the relevant course / subject classifications as mentioned) in the course structure, fulfill all the attendance and academic requirements for 160 credits (124 credits in case of LES) securing a minimum of **'C'** grade or above in each subject, and 'earn all 160 credits (124 credits in case of LES) 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 If a student registers for '**additional subjects**' (in the parent department or other departments / branches of engineering) other than those listed subjects totaling to 160 credits (124 credits in case of LES) as specified in the course structure of parent department, the performances in those '**additional subjects**' (although evaluated and graded using the same procedure as that of the required 160 credits (124 credits in case of LES)) will not be taken into account while calculating the SGPA and CGPA. For such '**additional 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 to 7.4 above.

7.6 A student eligible to appear in the semester end examination for any subject / course, but absent from it or failed (thereby failing to secure **'C'** grade or above) may reappear for that subject / course in the supplementary examination as and when conducted. In such cases, internal marks (CIE) assessed earlier for that subject / course will be carried over, and added to the marks to be obtained in the SEE supplementary examination for evaluating performance in that subject.

7.7 A student **detained in a semester due to shortage of attendance may be 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.

7.8 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 student has been readmitted shall be applicable.

8. EVALUATION - DISTRIBUTION AND WEIGHTAGE OF MARKS

8.1 The performance of a student in each semester shall be evaluated subject-wise / course-wise (irrespective of credits assigned) with a maximum of 100 marks. These evaluations shall be based on 30 marks allotted for CIE (Continuous Internal Evaluation) and 70 marks for SEE (Semester End Examination), and a letter grade corresponding to the percentage of marks obtained shall be given.

8.2 Evaluation of Theory Subjects / Courses

A) Continuous Internal Evaluation: Each mid examination is carried out for 30 marks consisting of
  a. Subjective paper of 15 marks for 60 minutes as Part-I
  b. Presentations, Group Discussions, Quiz, Open book examinations, PBL etc. for 10 marks as Part-II
  c. 5 Marks for assignment test.

The final CIE Marks can be calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each subject

- The first mid-term examination shall be conducted for the first 50% of the syllabus, and the second mid-term examination shall be conducted for the remaining 50% of the syllabus.

- The subjective paper shall be conducted for a duration of 60 minutes. Each subjective paper shall contain 2 parts (Part-A and Part-B). Part-A consists of one compulsory question for 5 marks and Part-B consists of 5 short answer questions carrying two marks each with internal choice; the student has to answer all 5 questions.

- First assignment should be submitted before the commencement of the first mid-term examinations, and the second assignment should be submitted before the commencement of the second mid-term examinations. The assignments shall be specified / given by the concerned subject teacher.

B) Semester End Examinations: The duration of SEE is 3 hours. The pattern of question paper should evaluate the student's ability of reproduction, design capabilities, reasoning in the contextual conditions. The Examination branch will notify the details of question paper every year.

The question paper pattern may be as follows:

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

- Part-A is compulsory, which consists of ten questions (two from each unit) carrying 2 marks each.

- Part-B consists of five questions (numbered from 11 to 15) carrying 10 marks each. One question from each unit (may contain sub-questions) with internal choice.

8.3 **Evaluation of Practical Subjects / Courses:** In any semester, a student has to complete a minimum of 10 experiments / exercises in each laboratory course and get the record certified by the concerned Head of the Department to be eligible for Semester End Examination.

For practical subjects, there shall be a Continuous Internal Evaluation (CIE) during the Semester for 30 internal marks and 70 marks for Semester End Examination (SEE).

A) **Continuous Internal Evaluation (CIE):** Out of the 30 marks, 20 marks are allocated for day-to-day work evaluation and the remaining 10 marks for midterm examinations. There shall be two mid-term examinations of 10 marks each conducted by the concerned laboratory teacher for a duration of 90 minutes and final CIE marks are calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each practical subject and these are added to the marks obtained in day to day work evaluation.

B) **Semester End Examination (SEE):** The SEE for practical subject / course in **two batches per section** shall be conducted at the end of the semester with duration of 3 hours by one internal and one external examiner appointed by the Chief controller of examinations as per the recommendation of the concerned Head of the Department.

8.4 **Evaluation of Design / Drawing Subjects / Courses:** For the subjects such as Engineering Graphics, Machine Drawing and estimation, the distribution shall be 30 marks for CIE (20 marks for day-to-day work and 10 marks for internal examination) and 70 marks for SEE.

A) Continuous Internal Evaluation: There shall be two internal tests in a Semester and the Marks for 10 can be calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each subject and these are added to the marks obtained in day to day work evaluation.

B) Semester End Examinations: The duration of SEE is 3 hours consisting of five questions carrying 14 marks each. One question from each unit (may contain sub-questions) with internal choice.

8.5 **Evaluation of Summer Internship and Mini Project:** The summer Internship shall be registered by the student in consultation with the course coordinator after the completion of II Semester, IV Semester and VI Semester(mini project) and taken up during the summer vacation. It shall be submitted in a report form and presented before the committee in III, V and VII Semester. Each submission shall be evaluated for 100 marks by the committee consisting of Head of the Department, concerned supervisor and one senior faculty member of the department. The evaluation will be carried out to test the acquired skills by the student in a minimum of 40 man hours during Internship

8.6 Evaluation of Project work:

1) Academic Projects: Student(s) shall start the Project Work during the VII Semester (IV-B. Tech–I–Semester) as per the instructions of the Project Guide / Project Supervisor assigned by the Head of the Department. The topics for Mini Project, Summer Internship, Project Stage – I.

a) The Project Work shall be carried out in two stages: Project-I (Stage – I) during VII Semester (IV-B. Tech.–I–Semester), and Project-II (Stage – II) during VIII Semester (IV-B. Tech–II–Semester), and the student has to prepare two independent Project Work Reports – *one each during each stage*. First Report shall include the Project Work carried out under Stage – I, and the Second Report (Final Report) shall include the Project Work carried out under Stage – I and Stage – II put together. Stage – I and Stage – II of the Project Work shall be evaluated for 100 marks each.

b) For the Project work Stage - I, the Internal Viva-voce shall be conducted for 100 marks at the end of the VII Semester, before the commencement of the Semester End Examinations. The marks earned under CIE for the Project work shall be awarded by the Project Review Committee (PRC) along with the Project Guide / Supervisor based on the continuous evaluation of student's performance during the Project Work.

c) For the Project work Stage – II, 30 marks shall be for the Continuous Internal Evaluation(CIE), and 70 marks shall be for the End Semester Viva-voce Examination (SEE). The end semester Viva-voce shall be conducted by the Committee comprising of an External Examiner appointed by the Head of the Institution, Head of the Department and Project Supervisor at the end of the VIII Semester, before the commencement of the semester End Examinations.

d) If a student does not appear (or fails) for any of the two Viva-voce examinations at the scheduled times as specified above, he may be permitted to reappear for Project Stage - I and/or Project Stage - II Viva-voce examinations, as and when they are scheduled again in that semester; if he fails in such 'one reappearance' evaluation also, he has to reappear for the same in the next subsequent semester(s), as and when they are scheduled, as supplementary candidate.

8.7 Evaluation of Mandatory and Audit Non-Credit Courses:

a. **Mandatory Courses:** There shall be only CIE for all mandatory (noncredit) courses, instead of marks or letter grade '**Satisfactory with excellent/very good/good'** or "**Unsatisfactory'** shall be indicated and this will not be counted for the computation of SGPA / CGPA. The student has to maintain a minimum of 75% attendance and secure not less than 40% in the CIE and then only the student is declared as **pass** and will be qualified for the award of the degree.

b. **Audit Courses:** The student has to undergo the audit course with minimum 75% of attendance to be eligible for the certification in that course.

9. GRADING PROCEDURE

9.1 Marks will be awarded to indicate the performance of the student in each theory subject, lab / practical's, design/drawing practice, Mini Project, Summer Internship,

Presentations and Project Work-I & Project Work-II based on the percentage of marks obtained in 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 student's performance, a 10-point Absolute Grading System using the following letter grades (UGC Guidelines) and corresponding percentage of marks shall be followed...

% of Marks Secured (Class Intervals)	Letter Grade (UGC Guidelines)	Grade Points
90% and above ($\geq$ 90% , $\leq$ 100%)	O (Outstanding)	10
Below 90% but not less than 80% ($\geq$ 80%, < 90%)	A$^+$ (Excellent)	9
Below 80% but not less than 70% ($\geq$ 70%, < 80%)	A (Very Good)	8
Below 70% but not less than 60% ($\geq$ 60%, < 70%)	B$^+$ (Good)	7
Below 60% but not less than 50% ($\geq$ 50%, < 60%)	B (above Average)	6
Below 50% but not less than 40% ($\geq$ 40% , < 50%)	C (Average)	5
Below 40% (< 40%)	F (Fail)	0
Absent	Ab	0

9.3 A student obtaining 'F' grade in any subject shall be considered **'failed'** and will be required to reappear as '**Supplementary Student**' in the Semester End Examination (SEE), as and when offered. In such cases, Continuous Internal Examination (CIE) in those subject(s) will remain same as those obtained earlier.

9.4 A letter grade does not imply any specific % of marks.

9.5 A student shall not be permitted to repeat any subject/course (s) only for the sake of '**grade improvement**' or 'SGPA / CGPA improvement'. However, student has to repeat all the subjects / courses pertaining to that semester, if detained.

9.6 A student earns grade point (GP) in each subject / course, on the basis of the letter grade obtained in that subject/course (excluding mandatory non-credit courses). Then 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

9.7 The student passes the subject / course only when GP $\geq$ 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

SGPA (S$_i$) = $\sum (C_i$ X $G_i) / \sum C_i$

Where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.

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 second semester onwards, at the end of each semester, as per the formula:

$$CGPA = \sum (C_i \ X \ S_i) / \sum C_i$$

where S_i is the SGPA of the ith semester and C_i is the total number of credits in that semester.

Illustration of calculation of SGPA					**Illustration of calculation of CGPA**			
Course /Subject	**Credits**	**Letter Grade**	**Grade Points**	**Credit Points**	**Sem.**	**Credits**	**SGPA**	**Credits x SGPA**
Course 1	4	A	8	4 x 8 = 32	Sem I	19	7	19 x 7= 133
Course 2	3	O	10	3 x 10 = 30	Sem II	19	6	19 x 6= 114
Course 3	3	C	5	3 x 5 = 15	Sem III	21	6.5	21 x 6.5 =136.5
Course 4	3	B	6	3 x 6 = 18	Sem IV	21	6	21 x 6 = 126
Course 5	1.5	A$^+$	9	1.5x9 = 13.5	Sem V	21	7.5	21 x 7.5 =180
Course 6	1.5	A	8	1.5x8 = 12	Sem VI	21	8	21 x 8 = 157.5
Course 7	1.5	B$^+$	7	1.5x7 = 10.5	Sem VII	21	8.5	21 x 8.5 =178.5
Course 8	1.5	A$^+$	9	1.5x9 = 13.5	Sem VIII	17	8	17 x 8 = 136
Total	**19**		**62**	**144.5**	**Total**	**160**		**1161.5**
SGPA = 144.5/19 = 7.60					**CGPA = 1161.5/160 = 7.26**			

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 Item 9.6–9.10, 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. However, mandatory courses will not be taken into consideration.

10   PASSING STANDARDS

10.1 A student shall be declared '**successful'** or '**passed**' in a semester, if student secures a GP $\geq$ 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 a student 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, grade earned etc.), credits earned, SGPA, and CGPA.

11 DECLARATION OF RESULTS

11.1 Computation of SGPA and CGPA are done using the procedure listed in 9.6 – 9.9.

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

Percentage of Marks = (final CGPA – 0.5) x 10

12 AWARD OF DEGREE

12.1 After a student has satisfied the requirement prescribed for the completion of the program and is eligible for the award of B. Tech. degree the student shall be placed in one of the following four classes based on CGPA:

Class Awarded	Grade to be Secured	Remarks
First Class with Distinction	≥ 8 CGPA	From the aggregate marks secured from 160 Credits for Regular Students and 122 Credits for Lateral Entry Students.
First Class	≥ 6.5 to < 8 CGPA	
Second Class	≥ 5.5 to < 6.5 CGPA	
Pass Class	≥ 5.00 to < 5.5 CGPA	
FAIL	CGPA < 5	

12.2 First class with distinction will be awarded to those students who clear all the subjects in single attempt during his / her regular course of study by 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) for B. Tech. (Regular) and first 3 academic years (or 6 sequential semesters) for B. Tech. (LES) from the date of commencement of first year first semester for B. Tech. (Regular) and II year I semester for B. Tech. (LES).

(ii) Should have secured a CGPA >= 8.00, at the end of each of the 8 sequential semesters (6 sequential semesters for LES), starting from I year I semester (starting from II year I semester for LES) 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'**.

12.3 **Award of Medals:** Students fulfilling the conditions listed under item 12.2 alone will be eligible for award of '**College Ranks**' and '**Medals**'.

12.4   Graduation Day: The College shall have its own Annual Graduation Day for the award of Degrees issued by the University.

12.5   Transcripts: After successful completion of prerequisite credits for the award of degree a transcript containing performance of all academic years will be issued as a final record. Duplicate transcripts will also be issued if required after the payment of requisite fee and also as per norms in vogue.

13   WITH HOLDING OF RESULTS

If the student has not paid the fees to the Institute 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   SUPPLEMENTARY EXAMINATIONS

Supplementary examinations will be conducted within 15 days of the announcement of results for that semester. If a student fails in any of the subject then s/he has to register for the supplementary exam after fulfilling the conditions of attendance for remedial classes. A student is allowed to appear for supplementary exams only after fulfilling the attendance criteria as mentioned in Sl.No 6.

15.   TRANSITORY REGULATIONS

a) 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).

If a student takes readmission into odd semester based on attendance detention, then he/she has to pay full tuition fee for that readmitted year and if he/she takes readmission into even semester then they have to pay 50% of the tuition fee.

b) A student who has failed in any subject under any regulation has to pass those subjects in the respective regulations.

c) The maximum credits that a student acquires for the award of degree, shall be the sum of the total number of credits secured in all the regulations of his/her study including HR 21 Regulations. The performance evaluation of the student will be done as per the rules and regulations applicable at the time of admission(s) regarding award of grade and/or class as the case may be.

d) If a student readmitted in ongoing Regulations, has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in Previous Regulations will be substituted by another subject to be suggested by college Academic Committee and approved by the HITAM Academic Council.

e) **Promotion Rule:** Where the credits allotted to a semester/year under the regulations studied in are different from that under HR 21 regulations for the corresponding semester/year, the promotion rules of HR 21 vide section 7.3 shall be applied after normalization. Normalization is done by scaling down or up the number of credits of a semester/year under the previous regulations to equal the number of credits of the corresponding semester/year under HR 21 regulations and revising the secured credits also in the same proportion.

16   STUDENT TRANSFERS

There shall be transfers from other colleges / streams as per the GO issued by TSCHE/NEP 2020.

17   RULES OF DISCIPLINE

17.1 Any attempt by any student to influence the teachers, examiners, faculty members and staff of Controller of Examination office for undue favors in the exams and bribing them either for marks or attendance will be treated as malpractice case and the student can be debarred from the college.

17.2 When the performance of the student in any subject(s) is cancelled as a punishment for indiscipline, student is awarded zero marks in that subject(s).

17.3 When the student's answer book is confiscated for any kind of attempted or suspected malpractice the decision of the Malpractice Prevention Committee is final.

18.   MALPRACTICE

18.1 **Malpractice Prevention Committee:** The committee shall examine the student's malpractice and indiscipline cases occurred, while conducting the examinations and recommend appropriate punishment to the Academic Council after taking explanation from the student and concerned invigilator as per the malpractice rules mentioned below. The committee consists of

a)   Chief Controller of Examinations or Principal - Chairman
b)   Controller of Examinations - Convener
c)   Subject Expert - Member
d)   Head of the Department of which the student belongs to - Member
e)   The Invigilator concerned - Member

18.2 Malpractice Rules: Disciplinary Action for Improper Conduct in Examinations

S. No.	Nature of Malpractices / Improper Conduct	Punishment
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	Expulsion from the examination hall and cancellation of the performance in that subject only.

	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)	
1(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 Principal.
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 practical's 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 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	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has

	after the examination.	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 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 Addl. Controller of examinations / 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 addl. Controller of examinations 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 addl. Controller of examinations, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all 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 principal for further action to award suitable punishment.	

19.   SCOPE

   i)   The Academic Regulations should be read as a whole, for the purpose of any interpretation.

   ii) The above-mentioned rules and regulations are applicable in general to both B. Tech. (Regular) and B. Tech. (LES), unless and otherwise specific.

   iii) In case of any dispute or discrepancy or ambiguity in the interpretation of the above rules, the decision of the Academic Council is final.

20.   AMENDMENTS TO REGULATIONS

In case of any specific requirement as mentioned by University / State Government / Occurrence of Disaster / Direction from BOG / Any other such urgent matter, amendments to the regulations shall be made by the Academic Council.

―――――――――