# R.M.K. COLLEGE OF ENGINEERING AND TECHNOLOGY

RSM Nagar, Puduvoyal– 601 206 (An Autonomous Institution)

### **REGULATIONS 2022**

### CHOICE BASED CREDIT SYSTEM

# Common to all B.E. / B.Tech. Full-Time Programmes

Applicable to the Students admitted to B.E. / B.Tech. Programmes from the AY 2022-23 onwards

# DEGREE OF BACHELOR OF ENGINEERING / BACHELOR OF TECHNOLOGY

This set of Regulations is applicable to the students admitted to B.E. / B.Tech. Programmes at R.M.K. College of Engineering and Technology, Puduvoyal, from the academic year 2022-23 onwards.

### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

- I. "**Programme**" means Degree Programme that is B.E./B.Tech. Degree Programme.
- II. "**Discipline**" means specialization or branch of B.E./B.Tech. Degree Programme, like Electronics and Communication Engineering, Information Technology, etc.
- III. "Course" means a theory / theory course with laboratory component / laboratory course with theory component or laboratory subject that is normally studied in a semester, like Mathematics, Physics, etc.
- IV. "Chairman, Academic Council" means the authority of the Institution who is responsible for all academic activities of the Institution/Departments for implementation of relevant Rules and Regulations.
- V. "Head of the Institution" means the Principal of the Institution.
- VI. "**BoS Chairman**" means Chairperson of Board of Studies of each department / Division (S&H)
- VII. "Head of the Department" means the head of the Department concerned.
- VIII. "Controller of Examinations" means the authority of the Institution who is responsible for all Examination related activities of the Institution.
  - IX. "Credit" means a numerical value allocated for each course to describe the student's workload required per week.
  - X. "Grade" means the letter grade assigned to each course based on the range of marks specified.
  - XI. "Grade Point" means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- XII. "Institution" means R.M.K. COLLEGE OF ENGINEERING AND TECHNOLOGY.
- XIII. "University" means ANNA UNIVERSITY, CHENNAI.

### 2. ELIGIBILITY FOR ADMISSION

2.1 Candidates seeking admission to the first semester of the eight semesters B.E. / B.Tech. Degree Programme:

Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Syndicate of Anna University as equivalent thereto.

# (OR)

Should have passed the Higher Secondary Examination of Vocational Stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

# 2.2 Lateral entry admission

(i) The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. in the branch corresponding to the branch of study.

(OR)

(ii) The candidates who possess the Degree in Science (B.Sc.,) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. /B.Tech.

Such candidates shall undergo two additional Engineering subject(s) in the third and fourth semesters as prescribed by the Institution.

# 3. PROGRAMMES OFFERED

A candidate may be admitted to any one of the following programme/ disciplines of study approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai.

- 1. B.E. Computer Science and Engineering
- 2. B.E. Computer Science and Engineering (Cyber Security)
- 3. B.E. Electronics and Communication Engineering
- 4. B.Tech. Artificial Intelligence and Data Science

### 4. STRUCTURE OF PROGRAMMES

### **4.1 Categorization of Courses**

Every B.E. / B. Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. Humanities, Social Sciences and Management Courses (HSMC) include Technical English, Engineering Ethics and Human Values, Communication skills, etc.
- ii. **Basic Sciences Courses** (**BSC**) include Mathematics, Physics, Chemistry, Biology, etc.
- iii. **Engineering Sciences Courses (ESC)** include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- iv. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.
- v. **Professional Elective Courses** (**PEC**) include the elective courses relevant to the chosen specialization/branch.
- vi. **Open Elective Courses (OEC)** include the courses offered by a branch to other branches, from the list specified in the respective curriculum of the B.E./ B.Tech. Programme.
- vii. **Employability Enhancement Courses (EEC)** include Mini-Project, Project Work, Industry Internship, Seminar, Professional Practices, Case Study, Aptitude & Coding Skills Practices, Industrial/Practical Training and Product Development Laboratory.
- viii. Mandatory Courses (MC) should be studied compulsorily by all the students irrespective of the programme which includes Induction Program.
- ix. **Audit Courses (AC)** include the courses such as Value Education, Yoga, etc.

# 4.2 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programme (NSS/YRC/UBA/NSO) and undergo training for about 40 hours (20 hours for lateral entry). The training shall include classes on hygiene and health awareness and also training in first aid.

Activities of science, literature and fine arts also will be helpful for personality and character development. Students shall participate actively in **Student Activity Cell (SAC)** activities.

**National Service Scheme (NSS)** will have social service activities in and around the Institution.

Youth Red Cross (YRC) will have activities related to social services in and around Institution.

Unnat Bharath Abhiyan (UBA) will have activities related to rural development in and around the Institution under UBA Scheme for the 5 Villages adopted by the Institution.

**National Sports Organization (NSO)** will have Sports, Games, Drills and Physical exercises.

While the training activities will normally be conducted during weekends, the camp will normally be done during the vacation period.

Students who enroll and take active participation in anyone of the above activities and participate at least, in one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for publishing in the grade sheet.

# 4.3 Number of courses per semester

Each semester, the curriculum shall normally have a blend of Theory courses, Theory courses with laboratory component, Laboratory courses with theory component, Laboratory courses, Employability Enhancement Courses, Mandatory Courses and Audit Courses not exceeding 12. Each Course may have credits assigned as per clause 4.4.

# **4.4 Credit Assignment**

4.4.1 Each course is assigned certain number of credits based on the following:

Contact period per week	CREDITS
1 Lecture Period	1
1Tutorial Period	1
1 Laboratory Period	0.5
1 Periods of EEC courses like / Seminar / Project Work/Case study/etc.)	0.5

4.4.2. Total of 160 to 163 credits distributed among various subjects grouped under different categories are as follows:

S. No.	Category	Credits	Course Category Code
1.	Humanities and Social Sciences including Management courses	12*+3(UHV)	HSMC
2.	Basic Science Courses	25*	BSC
3.	Engineering Science Courses including workshop, drawing, basics of electrical/mechanical/computer etc.	24*	ESC

4.	Professional Core Courses	53*	PCC
5.	Professional Elective Courses relevant to chosen specialization/branch	18*	PEC
6.	Open Elective Courses–Electives from other technical and/or emerging subjects	12*	OEC
7.	Employability Enhancement Courses- Project Work/Mini Project, Seminar, Internship in Industry or elsewhere and Aptitude and Coding skills	16*	EEC
8.	A. Mandatory Courses [Environmental Sciences and Sustainability, Induction Program, Indian Constitution, Essence of Indian Knowledge Tradition] B. Audit Courses [Value Education, Yoga for Stress Management, Personality Development through Life Enlightenment skills, Skill Enhancement Programme]	(non-credit)	MC/AC
	Total Credits	160*+3	

# 4.5 Industrial Training/Internship

The students may undergo Industrial training for a period as specified in the Curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for a period of at least two weeks in an organization. The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Certificate mentioning the period of Industrial Training / Internship and signed by the competent authority of the industry shall be submitted to the Head of the Department.

Duration	Credits
2 Weeks	1 Credit
4 Weeks	2 Credit
6 Weeks	3 Credit

# **4.6 Industrial Visit**

Every student is required to go for at least two Industrial Visits every year starting from the second year of the Programme. The Heads of the Departments shall ensure the necessary arrangements made in this regard.

### 4.7 Value Added Courses

The Students may optionally undergo Value Added Courses and the credits earned through the Value-Added Courses shall be over and above the total credit

requirement prescribed in the curriculum for the award of the degree. One / Two credit courses shall be offered by the Department of the institution with the prior approval of BoS and Academic Council. The details of the syllabus, time table and faculty may be sent to the Head of the Institution in advance (at least one month before) for the approval before the course is offered. Students can take a maximum of two one-credit courses / one two-credit course during the entire duration of the Programme.

### 4.8 Online Courses

Students may be permitted to undergo a maximum of one online course per semester, with the approval of Head of the Institution, in lieu of Professional core / Professional elective /Open elective courses. The Head of the Institution shall form a four member committee with members as HoD, a faculty member from the Department of the student, HoD of any other branch of the Institution and an Industry Expert to suggest the suitable online courses and ensure that the student has not studied such courses and would not repeat it again as Professional Core/Professional Elective/Open Elective courses. Suitable online courses shall be chosen from the SWAYAM platform, Infosys Springboard, Coursera, Naan Muthalvan, etc.

### 4.9 Mandatory courses

The student study mandatory courses prescribed in the curriculum and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

#### 4.10 Audit courses

The student may optionally study audit courses prescribed in the curriculum and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

### 4.11 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

### 5. DURATION OF THE PROGRAMME

- 5.1 A student is ordinarily expected to complete the B.E. / B.Tech. Programme in 8 semesters (four academic years) but, in any case not more than 14 Semesters for HSC (or equivalent) candidates and not more than 12 semesters for Lateral Entry Candidates.
- 5.2 Each semester shall normally consist of 75 working days or 525 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the full content of the specified syllabus for the course being taught.

5.3 The Head of the Institution may permit to conduct additional classes for improvement, special coaching etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the End Semester Examinations (as per clause 7) by the students, the following method shall be used.

Percentage of Attendance =

[(Total no. of periods attended in all the courses per semester)/

{(No. of periods /week as prescribed in the curriculum) x No. of Weeks taken together for all courses of the semester} ] x 100

The End Semester Examination will ordinarily follow immediately after the last working day of the semester commencing from I semester as per the academic schedule prescribed from time to time.

5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 19) so that he/she may be eligible for the award of the degree (vide clause 17).

### 6. COURSE REGISTRATION

6.1 Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 6.2)). The student can also register for courses for which the student has failed in the earlier semesters.

The registration details of the candidates may be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is to undergo the course as well as for writing the End Semester Examinations. No Elective course shall be offered by any department unless a minimum one third of the class strength register for the course.

The courses that a student registers in a particular semester may include

- i. Courses of the current semester.
- ii. Courses dropped in the previous semester.(Clause 6.2)

The maximum number of credits that can be registered in a semester is 36. However, this does not include the number of Re-appearance (RA) and Withdrawal (W) courses registered by the student for the appearance of Examination

### **6.2 Flexibility to Drop Courses**

- 6.2.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.
- 6.2.2 From the III to final semesters, the student has the option of dropping existing courses in a semester during registration. The total number of credits of

such courses cannot exceed 6. The student is permitted to drop the course(s) within 30 days of the commencement of the academic schedule.

6.2.3 The student shall register for the project work in the final semester only.

### **6.3** Advancement of Courses

The students shall undergo the seventh semester courses other than the Project Work – Phase I, if any, in the fifth and sixth semesters, provided they do not have current arrears and have a CGPA of 7.50 and above at the end of Semester IV. The Head of Department, in consultation with the faculty handling the said courses shall forward the proposal recommended by the Head of Institution to the Controller of Examinations for approval at least 4 weeks before the commencement of the fifth semester of the programme for approval.

# 7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

7.1 A Candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester.

Ideally, every student is expected to attend all classes of all the courses and secure 100% attendance. However, to give provision for certain unavoidable reasons such as Medical/participation in sports, the student is expected to attend at least 80% of the classes.

Therefore, he/she shall secure not less than **80%** (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.

- 7.2 However, a candidate who secures overall attendance between 65% and 79% in the current semester due to medical reasons (prolonged hospitalization / accident /specific illness) / participation in sports events / participation in corporate events may be permitted to appear for the current semester examination subject to the condition that the candidate shall submit the medical certificate/ sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.
- 7.3 Candidates who secure less than 65% overall attendance and candidates who do not satisfy clause 7.1 and 7.2 shall not be permitted to write the End Semester Examination and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

### 8. FACULTY

### 8.1 Class Advisor

There shall be a class advisor for each class. The class advisor will be one of the course-instructors of the class. He / She will be appointed by the HoD of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities of the class advisor shall be:

- To act as the channel of communication between the HoD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in the planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships, and industrial visits.

### 8.2 Counselor

The Counselor shall advise and guide their counseling students in registration of courses, the reappearance of courses, monitor their attendance, progress and any other problems and counsel them periodically. The Counselor shall discuss/inform to the parents about the progress/performance of the students concerned.

### 9. CLASS COMMITTEE

- 9.1 Every class shall have a class committee consisting of teachers of the class concerned, student representatives, and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching- learning process. The functions of the class committee include
  - Solving problems experienced by students in the classroom and in the laboratories. Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 7).
  - Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
  - Informing the student representatives, the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory/drawing/project work/seminar etc.) the breakup of marks for each experiment/exercise/module of work should be clearly discussed in the class committee meeting and informed to the students.
  - Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
  - Identifying the slow learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such slow learners.
- 9.2 The class committee shall be constituted within the first week of each semester.

- 9.3 At least 4 student representatives (usually 2 boys (one day scholar, one hosteller) and 2girls (one dayscholar, one hosteller)) shall be included in the class committee.
- 9.4 The Chairperson of the class committee may invite the Class advisor(s) and the Head of the Department to the class committee meeting.
- 9.5 The Head of the Institution may participate in any class committee of the institution.
- 9.6 The Chairperson is required to prepare the minutes of every meeting, submit the same to Head of the Institution within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.7 The first meeting of the class committee shall be held within a week from the date of commencement of the semester, to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. During these meetings, the student members representing the entire-class shall meaningfully interact and express the opinions and suggestions of the other students of the class to improve the effectiveness of the teaching-learning process.

### 10. ONLINE FEEDBACK

Online Feedback from students shall be collected for every subject after every unit about the faculty for various parameters and the consolidated Feedback Information shall also be conveyed to the concerned faculty member through respective HoD to improve the Teaching Process and other activities of the Faculty members. In addition, at the end of the semester feedback shall be collected for academic and related activities.

### 11. COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one discipline or group shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or several departments. The 'Course committee' shall meet to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the course committee may also prepare a common question paper for the internal assessment test(s).

### 12. SYSTEM OF EXAMINATION

- 12.1 Performance in each course of study shall be evaluated based on
  - i) Continuous Internal Assessment (CIA) throughout the semester

- ii) End Semester Examination (ESE).
- 12.2 Each course such as theory, theory course with laboratory component, laboratory course with theory component, laboratory, project work & viva voce examinations and employability enhancement courses(including mini project, internship, seminar, aptitude and coding skills, product development laboratory) shall be evaluatedforamaximumof100marks as given below

S. No.	Course	Continuous Internal Assessment	End Semester Examination	Total Marks
1	Theory	40	60	100
2	Theory course with laboratory component	50	50	100
3	Laboratory course with theory component	50	50	100
4	Laboratory	60	40	100
5	Project Work	50	50	100
6	Other EEC	100	-	100
7	Mandatory/Audit Course	100	-	100

- 12.3 The End Semester Examination (theory, theory course with laboratory component, laboratory course with theory component and laboratory) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.
- 12. 4 The End Semester Examination for project work shall consist of
  - i) An evaluation of the final report submitted by the student or students of the project group (of not exceeding 4students) by an external examiner and an internal examiner.
  - ii) A viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.
- 12.5 For the End Semester Examination in theory courses, theory courses with laboratory component, and laboratory courses including project work, the internal and external examiners from Academics or Industry shall be appointed by the Controller of Examinations.

# 13. PROCEDURE FOR AWARDING MARKS FOR CONTINUOUS INTERNAL ASSESSMENT

For all theory, theory course with laboratory component, laboratory course with theory component, laboratory courses, and project work the Continuous Internal Assessment shall be awarded as per the procedure given below:

# 13.1 Theory Courses

Assessment	Portions	Duration	Maximum Marks	Maximum CIA Marks
First Internal Assessment Test	2 Units	3 Hours	100 Marks	20 (Avanga of all 2 tests is
Second Internal Assessment Test	2 Units	3 Hours	100 Marks	(Average of all 3 tests is converted to 20 marks and rounded off to the nearest
Model Examination	5 Units	3 Hours	100 Marks	integer)
0.1	Multiple Choice Questions			5
Other Assessment	Assignments			5
Assessment	Mini Project / Others			5
	Attenda	5		
Total Continu	ous Intern	40		

# 13.2 Laboratory Courses

S. No.	Assessment	Maximum CIA Marks			
1.	Completion of Experiments and Evaluation of Laboratory Record	30			
2.	2. Model Practical Examination				
3.	Attendance	10			
	Total Continuous Internal Assessment Marks				

# 13.3 Theory courses with laboratory component/ Laboratory courses with theory component

Weightage of Continuous Internal Assessment and End Semester Examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the Continuous Internal Assessments and End Semester Examination for different types of courses are provided in the table.

L	T	P	C	Continuous Internal Assessment*	End Semester Examination	
1	0	4	3	Laboratory (25%) Theory (25%)	Laboratory only (50%)	
1	0	2	2	Laboratory (25%) Theory (25%)	Laboratory only (50%)	
2	0	2	2	Theory (25%)	Theory (25%)	
2	2 0 2 3		3	Laboratory (25%)	Laboratory (25%)	
2	0	2	4	Theory (25%)	Theory (35%)	
3	0	2	4	Laboratory (25%)	Laboratory (15%)	
2	0	4	4	Theory (25%)	Theory (15%)	
2	0 4 4		4	Laboratory (25%)	Laboratory (35%)	

<sup>\*</sup>The procedure for the conduct of Continuous Internal Assessments for theory and laboratory components shall be as per the clause 13.1 and 13.2 respectively.

# 13.4 Project Work

Project work may be allotted to a single student or a group of students not exceeding 4 per group.

The Head of the Institutions shall constitute a review committee for project work for each branch of study. There shall be three reviews during the semester by the review committee. The student shall make a presentation on the progress made by him/her before the committee. The total marks obtained in the three reviews for 50marks and rounded to the nearest integer (as per the scheme given in13.4.1).

13.4.1 The project report shall be submitted as per the approved guidelines as given by the Project Review Committee. Project Report Evaluation and vivavoce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the project report evaluation and viva-voce examination.

<b>Continuous Internal Assessment</b>			End S	emester Examin	ations
Review I	Review II	Review III	Project Report Evaluation and Viva-Voca (50)		
10	20	20	Internal	External	Supervisor
10	20	20	20	20	10

13.4.2 If a candidate fails to submit the project report on or before the specified deadline without any valid reasons, he/she is deemed to have failed in the Project Work and shall re-register for the same in a subsequent semester.

# 13.5 Other Employability Enhancement Courses

- 13.5.1 The Continuous Internal Assessment marks (100) for the Softskills / Seminar / Case study are calculated as follows.
  - Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned.
  - The three-member committee appointed by the Head of the Institution will evaluate the seminar.

Seminar Paper	Presentation	Viva-Voce	<b>Total Marks</b>
40	40	20	100

- 13.5.2 The Continuous Internal Assessment marks (100) for the Industrial Training/Internship is calculated as follows.
  - At the end of Industrial training/Internship the candidate shall submit a certificate from the organization where he / she has undergone training and a brief report.

• The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three - member Departmental Committee constituted by the Head of the Institution.

Industrial training/Internship	Presentation	Viva-Voce	Total Marks
40	40	20	100

# 13.5.3 The Mini Project shall be evaluated through three reviews as Continuous Internal Assessments.

- The first and second reviews are to be evaluated by a three member internal committee constituted by the Principal which includes the guide and concerned HoD.
- At the end of the semester, the student shall submit a brief report on the Mini-Project.
- The third review will be conducted based on this report and Viva-Voce examination conducted by the internal committee with the approval of Controller of Examinations.

Review I	Review II	Rev	iew III	Total	
Keview i	Keview II	Report	Viva-Voce	Marks	
25	25	20	30	100	

# 13.5.4 The Continuous Internal Assessment marks (100) for the Aptitude and Coding skills is calculated as follows.

Assessment	Marks			
Skillrack Performance				
Aptitude test	10			
Proctored Test( Two test during assessment schedule)	20			
Performance (Daily Challenge + Daily Tracks + Coding test + Code	20			
tracks)				
AMCAT Performance				
Technical	5			
Aptitude (Quants-10%, English-10% and Logical – 10%)	30			
Writex	5			
Automata	10			
Total	100			

### 13.6 Assessment for Value Added Course

- The one / two credit course shall carry 100 marks and shall be evaluated through Continuous Internal Assessments only.
- Two Assessments shall be conducted during the semester by the Department concerned.

- The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer.
- A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall monitor the evaluation process.
- The list of students along with the marks and the grades earned may be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.

### 13.7 Assessment for Online Courses

- The Head of the Institution shall form a three-member committee with members as HOD and a faculty member from the Department of the student, HOD of any other branch of the Institution.
- The Committee can decide whether to evaluate the online courses through Continuous Internal Assessment and End Semester Examination or through End Semester Examination only and same may be conveyed to the Controller of Examination at the beginning of the semester when the course is offered.
- The Head of the department may identify a faculty member as coordinator for the course, who will be responsible for the evaluation process.
- A committee consisting of the Head of the department, course coordinator and
  a subject expert from other institutions nominated by the Head of the
  Department shall assign the grades to the students based on their relative
  performance.
- In case of credits earned through online mode from an institute approved by appropriate authorities of the college, the credits may be transferred and grades shall be assigned by a committee consisting of the Head of the Department and Senior faculty member nominated by the Head of the Institution.

# 13.8 Audit/Mandatory courses

The student who secures more than 80% attendance and secures a minimum of 50% marks in Continuous Internal Assessment in the non-credit Mandatory/Audit Course will be mentioned as "Completed" in the grade sheet. However it will not be considered for computation of CGPA.

### 13.9 Attendance Record

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks, and the record of class work (topic covered), separately for each course. This should be verified by the Head of the department periodically (at least three times in a semester) for checking the syllabus coverage and the records of

test marks and attendance. At the end of the semester, the record should be verified by the Head of the Institution who will maintain these details for five years. The Academic Audit Team may verify the records of attendance and assessment of both current and previous semesters.

### 13.10 Marks for Attendance

Attendance marks (rounded to the nearest integer) for the theory and laboratory courses will be awarded as per the procedure given below:

Attendance %	Theory Courses	Laboratory Courses
97 to100	5	10
93 to96	4	8
89 to92	3	6
85 to88	2	4
80 to84	1	2

# 14. REQUIREMENTS FOR APPEARING END SEMESTER EXAMINATIONS

- 14.1 A candidate shall normally be permitted to appear for the End Semester Examinations for all the courses registered in the current semester (vide Clause 6) if he/she has satisfied the semester completion requirements (subject to Clause 7).
- 14.2 A candidate who has already appeared for any subject in a semester and passed the examination is not entitled to reappear for the same subject for improvement of grades.

# 15. PASSING REQUIREMENTS

- 15.1 A candidate who secures not less than 50% of total marks prescribed for the course [Continuous Internal Assessment + End Semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for theory courses, theory courses with laboratory component, laboratory courses with theory component and laboratory courses (including project work).
- 15.2 If a student fails to secure a pass in courses in any semester, he/she is allowed to write Supplementary Arrear Examinations conducted within a period of one month after the publication of results, when the examination is conducted in that course; he/she should continue to register and reappear for the examinations in the failed subjects till he/she secures a pass. However, the absentees in any current semester examinations may be permitted to write the supplementary arrear examination conducted within a period of one month after the publication of results is subject to, the valid reason provided by the student and the recommendation by the HoD with approval of the Principal.
- 15.3 The Continuous Internal Assessment (CIA) marks obtained by the candidate in the current semester (n) shall be retained and carried forward up to the next three

consecutive ESEs (n+3) till the candidate secures a pass. However from the (n+4)<sup>th</sup> ESE onwards, the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the End Semester Examinations alone. Conducting Continuous Internal Assessment test and other Assessments for improving CIA marks shall not be permitted from (n+1)<sup>th</sup> semester onwards.

15.4 The passing requirement for the courses which are assessed only through Continuous Internal Assessments (EEC courses except for project work), is 50% of the Continuous Internal Assessment mark sonly.

15.5 A student can apply for Photocopy of the student's semester examination answer paper in a theory course and theory course with laboratory component within one week from the declaration of results, on payment of a prescribed fee along with prescribed application to the CoE through the Head of the Institution. A student can apply for review of the student's semester examination answer paper in a theory course and theory courses with laboratory component within one week from the issue of Photocopy of the answer paper, on payment of a prescribed fee along with prescribed application to the CoE through the Head of the Institution. The CoE will arrange for the review of the answer paper and the results will be intimated to the student concerned through the Head of the Institution. Review is not permitted for laboratory courses, laboratory courses with theory component and project work.

### 16. AWARD OF LETTER GRADES

16.1 The award of letter grades will be decided based on relative grading principle. The relative grading is applicable to ONLY those students who have passed the examination as per the passing requirements enumerated above. For those students who have not passed the examination, Reappearance (U) shall be awarded as shown in the below Table.

16.1.1 For those students who have passed the course, the relative grading shall be done. The marks of those students who have passed only shall be entered in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student.

16.1.2 For a given course, if the students' strength is greater than 30, the relative grading method shall be adopted. However, if the students' strength is less than or equal to 30 then the fixed grading shall be followed with the grade range as specified below.

О	A+	A	B+	В	С	U
91-100	81-90	71-80	61-70	56-60	50 – 55	< 50

16.1.3 The performance of a student shall be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points
O (Outstanding)	10
A+ (Excellent)	9
A (VeryGood)	8
B+ (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-appearance)	0
SA (Shortage of Attendance)	-
WD (Withdrawal)	-

- A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C".
- 'SA' denotes shortage of attendance and hence prevented from writing the End Semester Examinations. 'SA' will appear only in the result sheet.
- "U" denotes that the student has failed to pass in that course.
- "WD" denotes withdrawal from the exam for the particular course.
- The grades U and WD will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations.
- 16.1.4 If the grade U is given to Theory Courses, Theory courses with laboratory component, Laboratory courses with theory component and laboratory courses it is not required to satisfy the attendance requirements, but has to appear for the End Semester Examination and fulfill the passing requirements to earn a pass in the respective courses.
- 16.1.5 If the grade U is given to EEC (Employability Enhancement Course) (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfill the passing requirements to earn pass in the course. However, attendance requirement need not be satisfied.
- 16.2 For the Co-curricular activities such as NSS/NSO / YRC / Student Activity Cell, a 'completed' remark will appear in the Grade Sheet on successful completion of the same. Every student shall put in a minimum of 80% attendance in the training and attend the camp or events of the Student Activity Cell compulsorily. The training and camp or club events shall be completed during the first year of the programme.

However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the subsequent years. Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.

16.3 The grades O, A+, A, B+, B, C obtained for the one/two credit course (not the part of curriculum) shall figure in the Grade Sheet under the title 'Value Added Courses'. The courses for which the grades obtained are RA, SA will not figure in the Grade Sheet.

16.4 For the students who complete the Mandatory Course satisfying attendance and passing requirements, the title of the Mandatory Course will be mentioned in the Grade Sheet. If the attendance and passing requirements are not satisfied, the student shall register for the mandatory course again in the subsequent semester, to fulfill the passing requirements to complete the course, However, attendance requirement need not be satisfied.

16.5 For the students who complete the Audit Course satisfying attendance and passing requirements, the title of the Audit Course will be mentioned in the Grade Sheet. If the attendance and passing requirements are not satisfied, it will not be shown in the Grade Sheet.

### 16.6 Grade sheet

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The list of courses enrolled during the semester and the grade scored.
- The Grade Point Average(GPA) for the semester and
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from the first semester onwards.

16.6.1 GPA for a semester is the ratio of the sum of the products of the number of credits for courses acquired and the corresponding points to the sum of the number of credits for the courses acquired in the semester.

16.6.2 CGPA will be calculated similarly, considering all the courses registered from the first semester. RA grades will be excluded for calculating GPA and CGPA.

$$GPA/CGPA = \frac{\sum_{i=1}^{n} Ci \times GPi}{\sum_{i=1}^{n} Ci}$$

Where.

- Ci is the number of credits assigned to the course
- GPi is the point corresponding to the grade obtained for each course

• *n* is the number of all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

### 17. ELIGIBILITY FOR THE AWARD OF THE DEGREE

- 17.1 A student shall be declared to be eligible for the award of the B.E./ B.Tech. Degree provided the student has
  - Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
  - ii. Successfully completed the course requirements, appeared for the End Semester Examinations and passed all the subjects within the period as prescribed in Clause 5.1.
- iii. Successfully passed any additional courses prescribed by the BoS, whenever the student is readmitted under Regulations 2022 from the earlier Regulations.
- iv. Completed the NSS/YRC/UBA/ NSO / SAC requirements.
- v. No disciplinary action pending against the student.
- vi. The award of Degree must have been approved by the Syndicate of the University.

# 17.2 Classification of the Degree Awarded

### 17.2.1 First Class with Distinction

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the eight semesters (and 6 semesters in the case of Lateral Entry) in the student's First Appearance within five years and (Four years in the case of Lateral Entry).
- Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry for the award of First class with Distinction.
- Should NOT have been prevented from writing End Semester Examination due to lack of attendance in any semester.

#### 17.2.2 First Class

A student who satisfies the following conditions shall be declared to have passed the examination in First-class:

- Should have passed the examination in all the courses of all eight semesters and 6 semesters in the case of Lateral Entry within five years and four years in the case of Lateral Entry.
- One year authorized break of study (if availed of) or prevention from writing the End Semester Examination due to lack of attendance (if applicable) is included in the duration of five years and four years in the case of lateral entry for the award of First class
- Should have secured a CGPA of not lessthan6.50.

### 17.2.3 Second Class

All other students (not covered in clauses 17.2.1 and 17.2.2) who qualify for the award of the degree (vide Clause17.1) shall be declared to have passed the examination in Second Class.

# 17.3 Minor/Honors Degree

Minor Degree or Honors Degree will carry 18 to 20 credits in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline as per Clause 17.1 and 17.2. To enhance the employability skills and impart deep knowledge in emerging areas which are usually not being covered in Undergraduate Degree credit framework, the Minor Degree or Honors Degree can be awarded in the following areas.

S. No.	Minor Degree / Hons. Degree	To be offered as Hons., Only for following Major Disciplines (For any other Major Disciplines which is not mentioned, it may be offered as Minor Degree)	
1	Cyber Security (COE)	Computer Science and Engineering	
2	Cloud Computing (COE)	Computer Science and Engineering	
3	Front End Engineering (COE)	Computer Science and Engineering	
4	Artificial Intelligence and Machine Learning(COE)	Artificial Intelligence and Data Science	
5	VLSI and System on Chip Design	Electronics and Communication Engineering	
6	Internet of Things (IoT)	Electronics and Communication Engineering	

17.4 A candidate who is absent in End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 18 and 19)

### 17.5 Valuation

Double valuation is adopted for all the theory courses through online mode to overcome any subjectivity in single valuation in the End Semester Examinations. So the provision for revaluation does not arise. However, if a student wants to appeal for Photocopy and review of the result in any subjects, he / she can submit a review application to the Institution CoE office. A committee consisting of the Head of the Department, concerned course instructor and a subject expert (Internal / External) nominated by the COE will review and give its recommendations.

- 17.5.1 If the difference of total marks obtained between two valuations is less than 15 marks, the highest mark among the two valuations will be considered for the award of marks.
- 17.5.2 If the difference in total marks obtained between two valuations is more than 15 marks, a third valuation is applicable. Out of the three valuations, the highest mark between two nearest marks (the mark obtained in third valuation and the marks obtained nearer to the third valuation out of the first two valuations) shall be considered for the award of marks. However, the difference between these two nearest marks must be less than 15.

# 18. PROVISION FOR WITHDRAWAL FROM END SEMESTER EXAMINATION

- 18.1 A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by HoD and Head of the Institution) be granted permission to withdraw from appearing for the End Semester Examination in any course or courses in ANY ONE of the semester examinations during the entire duration of the degree programme. The application shall be sent to the Controller of Examinations through the Head of the Institution with required documents.
- 18.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN working days after the date of examination in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations.
  - 18.2.1 Notwithstanding the requirement of mandatory 10 working days' notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 18.3 In case of withdrawal from a course / courses, the course will figure both in Marks Sheet as well as in Result Sheet. Withdrawal essentially requires the student to register for the course/courses. The student has to register for the course, fulfill the attendance requirements (vide clause 7), earn Continuous Internal Assessment marks and attend the End Semester Examination. However, the withdrawal shall not be

considered as an appearance for the eligibility of a candidate for First Class with Distinction.

18.4 Withdrawal is permitted for the End Semester Examinations in the final semester only if the period of study of the student concerned does not exceed 5 years as per clause 17.2.1.

### 19. PROVISION FOR AUTHORISED BREAK OF STUDY

- 19.1 A student is permitted to go on a break of study for a maximum period of one year as a single spell.
- 19.2 Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in an extraordinary situation, the candidate may apply for an additional break of study not exceeding another one year by paying the prescribed fee for the break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case, provided he / she applies to the Head of the Institution in advance, but not later than the last date for registering for the End Semester Examination of the semester in question, stating the reasons and the probable date of rejoining the programme.
- 19.3 The candidates permitted to rejoin the programme after a break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to Head of the Institution in the prescribed format at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in force, to bridge the curriculum in force and the old curriculum.
- 19.4 The authorized break of study would not be counted towards the duration specified for passing all the courses for classification (vide Clause17.2).
- 19.5 The total period for completion of the Programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study so that he/she may be eligible for the award of the degree.
- 19.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 19.1)

# **20. DISCIPLINE**

20.1 Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the Institution / College. The Head of Institution shall constitute a disciplinary committee consisting of Head of Institution, two Heads of Department of which one should be from the department of the student, to enquire

into acts of indiscipline and notify the Academic Council about the disciplinary action recommended for approval.

20.2 If a student indulges in malpractice in any of the End Semester Examination / Continuous Internal Examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

20.3 If a student involves in any major disciplinary action violating the rules, testimonial will not be given to him/her.

# 21. REVISIONOFREGULATIONS, CURRICULUM AND SYLLABI

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and scheme of examinations through the Academic Council with the approval of Governing Body.

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