BOARD OF TECHNICAL EDUCATION, RAJASTHAN, JODHPUR
RULES AND REGULATION
FOR DIPLOMA COURSES IN ENGINEERING AND NON ENGINEERING
SEMESTER SCHEME 2020-21
FOR THE SESSION 2020-2021 AND ONWARDS

Guidelines for Conduction of Examination and Evaluation Scheme

Examination of all subjects whether theory or practical will have two components

(i) End Term (Semester) Examination

(ii) Internal Assessment

The distribution of 100 Marks for End Term Examination and Internal Assessment will be as given in Table 1:

Table 1

S.No.	Type of Paper	Marks for End Semester Examination	Marks for Internal Assessment	Maximum Total Marks
1.	Theory Paper	60	40	100
2.	Practical Paper	40	60	100

Details of End Semester Examination (Theory Paper) are given in Table 2:

Table 2

S.No.	Component Name in the Question Paper	Number of Questions	Marks
1.	Type A (Very Short answer questions) (1 Line/ 10 Words Answer)	10 Questions (Students have to attempt all 10 questions)	10 Marks (one mark for each question)
2.	Type B (Short answer of maximum 5 lines/ 50 words)	12 Questions, (Students have to attempt any 8 questions)	20 Marks (2.5 marks for each question)
3.	Type C (Descriptive type, may have numerical also 15 lines/150 words)	5 Questions (Students have to attempt any 3 questions)	30 Marks (10 marks for each question)
Maximum Marks in End Semester Examination (A)			60
Total Duration of Examination			3 Hours

Details of the Internal Assessment Marks (Theory paper) are given in Table 3

Table 3

S. No.	Component Name	Marks	
		Subject with Tutorial	Subject without Tutorial
1.	I Mid Semester Exam	**10**	**20**
2.	II Mid Semester Exam	**10**	**20**

3.	Assignments/Tutorials	**20**	**0**
Maximum Marks in Internal Assessment (B)		**40**	**40**

Maximum Total Marks in a subject = Maximum marks of End Semester Examination (A) + Maximum marks of Internal Assessment (B) (60 + 40) = 100

Procedure to Award Grade in each Subject:

After the completion of End Semester Examination, the total marks obtained in each theory and practical paper separately (i.e. sum of marks obtained by student in End Semester Examination and Internal Assessment in theory and practical separately) by the student out of the maximum total marks in a subject will be used for awarding the grade in each subject (Separately for Theory and Practical). These marks will be called as the absolute total marks of the candidate in a subject. Absolute Total Marks (ATM) will be calculates as follows:

ATM for i^{th} Theory Paper = Marks obtained in End Semester i^{th} Theory Exam + Internal Assessment in i^{th} Theory Paper

ATM for i^{th} Practical Paper = Marks obtained in End Semester i^{th} Practical Exam + Internal Assessment in i^{th} Practical Paper

The steps to be followed for awarding the grade in each subject will be as follows:

Step1: The absolute total marks obtained (ATM_i) in a subject by the student shall be converted into relative marks (RM_i) in that subject on a 100-point scale using the formula given below:

$RM_i = (ATM_i/P_{max})\ Q$

Where:

RM_i is the converted relative marks of a student in i^{th} subject rounded off to next higher integer, further if the relative marks thus calculated exceed maximum total marks (100) then for that student the value of RM_i should be taken as 100.

ATM_i is the absolute total marks obtained by the student in i^{th}subject.

$P_{max}$to be selected from the Table 4 depending on the value of AVX_{maxi}.

Where, AVX_{maxi} is the average of the marks obtained by first N students in descending order of the absolute total marks secured by them in the ith subject starting from the student who has secured highest absolute total marks **(x_{maxi})** in that subject.

N to be calculated as 1% of the number of students appeared in the subject i , rounded off to next higher integer, but if the value of N thus calculated is less than 3 then N should be taken as 3 and if N thus calculated is more than 10 then it must be taken as 10.

Q to be selected from the Table 5 depending upon the absolute highest total marks obtained by any candidate/candidates in i^{th}subject

Table4

Range of AVX_{maxi}inith subject	**P_{max}**
$AVX_{maxi} \geq 90$	90

$80 \leq AVX_{maxi} < 90$	80
$70 \leq AVX_{maxi} < 80$	70
$60 \leq AVX_{maxi} < 70$	60
$50 \leq AVX_{maxi} < 60$	50
$40 \leq AVX_{maxi} < 50$	40
$30 \leq AVX_{maxi} < 40$	30

Table5

Highest Absolute total marks obtained by any candidate/candidates in i^{th}subject (x_{maxi})	**Q**
$X_{maxi} \geq 75$	100
$60 \leq X_{maxi} < 75$	89
$50 \leq X_{maxi} < 60$	84
$30 \leq X_{maxi} < 50$	74
$X_{maxi} < 30$ will not be considered for conversion (i.e. all the students will be awarded "F" Grade)	

Mapping of marks to Grades and Grade points is to be done as per Table 6

Table 6

S. No.	Relative Marks RMi	Grade	Grade Point (g_i)
1.	$RMi \geq 90$	A+	10.0
2.	$85 \leq RMi < 90$	A	9.5
3.	$75 \leq RMi < 85$	B+	9.0
4.	$70 \leq RMi < 75$	B	8.5
5.	$60 \leq RMi < 70$	C+	8.0
6.	$55 \leq RMi < 60$	C	7.0
7.	$45 \leq RMi < 55$	D+	6.0

8.	40 ≤RMi<45	D	4.0
9.	RMi< 40	F	0.0

(i) For a pass in a subject a candidate must obtain at least grade D in that subject whether it is theory or practical.

(ii) If a student remains "ABSENT" or obtains less than ***"TWENTY (20)"*** **Marks (Absolute Marks)** in any of the End Semester Theory or End Semester Practical Examination, he/she will also be awarded "F" grade. All students who have obtained "F" grade in a subject will be required to appear in subsequent back examinations. "F" grade student while applying for back paper examination may opt either of the following options:

(a)Wish to carry forward the already obtained previous marks of internal assessment

(b)Wish to improve the internal assessment too

(Improvement in internal assessment is permitted in Theory Subjects only)

(iii) No grace shall be awarded

Note: 1.Existing provisions of Retotalling and Answer book viewing are terminated .

(iv) Revaluation will be done as per the office order dated 27-04-2020 for approval of Meeting of Minutes dated 19-12-2019. (As per the rules or provisions of Revaluation) However, If as per existing rules or provisions there is a change in marks of a candidate after revaluation then the relative marks will be calculated as per the procedure outlined above. While calculating new relative marks the value of P_{max} and Q will be the same as that used while original result before revaluation was prepared. Change in marks will result in change in grade and grade point of the concerned candidate only in that subject and it will not affect the grades and grade point of all the other candidates in the subject, already obtained by them.

(v)For a back examinee, the grade and grade point of a subject/paper shall be calculated based on their appearance in present (appearing) examination.

(vi)The result may include the absolute marks obtained by student in an individual subject with related grade. However, the mark-sheet will contain the Grade, SGPA and CGPA only along with the important related rules of CBCS system.

(vii) Semester wise SGPA:

$$SGPA = \frac{\sum_{i=1}^{n} c_i * g_i}{\sum_{i=1}^{n} c_i}$$

where,

C_i = Credits of the registered subjectsg_i= Grade points awarded to

the student in the registered subject

i= 1, 2,...,n represent the total number of registered subjects in the semester

NOTE: All theory and practical subjects must be considered for calculation of SGPA

The overall grade of a student in the program of study upto the end of a particular semester shall be called as Cumulative Grade Point Average (CGPA). CGPA shall be calculated on the basis of all grades obtained in all undergone semesters as follows:

(viii) Overall CGPA

$$CGPA = \frac{\sum_{i=1}^{m} c_i * g_i}{\sum_{i=1}^{m} c_i}$$

where,

C_i = Credits of the registered subjects g_i = Grade points awarded to the student in the registered subject. i = 1, 2, ... ,m represent the total number of registered subjects

NOTE: All theory and practical subjects must be considered for calculation of CGPA

I Semester:

Subject Code (1)	Credits (2)	Grade Awarded(3)	Earned Credits(4)	Grade Points(5)	Points Secured(6)
X001	5	C+	5	8	40
X002	5	C	5	7	35
X003	5	A+	5	10	50
X004	3	B+	3	9	27
X005	2	F	0	0	0
X006	2	D	2	4	8
X007	1	A	1	9.5	9.5
X008	1	B	1	8.5	8.5
X009	1	A	1	9.5	9.5
X010	1	B+	1	9	9
X011	2	A+	2	10	20

The concept of SGPA and CGPA is explained inbelow example:

Credits registered in the I semester (Total of column 2) : 28
Earned Credits in the I semester (Total of column 4) : 26
Points secured in I semester (Total of column 6) :216.5

CGPA (I Semester) :7.73214 Round off to 7.74

II Semester:

Subject Code (1)	Credits (2)	Grade Awarded(3)	Earned Credits(4)	Grade Points(5)	Points Secured(6)
X001	5	C	5	7	35

X002	4	C+	4	8	32
X003	3	A	3	9.5	28.5
X004	4	B	4	8.5	34
X005	4	F	0	0	0
X006	1	D	1	4	4
X007	2	A+	2	10	20
X008	2	A	2	9.5	19
X009	1	B	1	8.5	8.5
X010	0	A	0	9.5	0
X011	2	A+	2	10	20

SGPA (I Semester): (Column 6/ Column 2) :7.73214 Round off to 7.74

Credits registered in the II semester (Total of column 2) : 28 Earned
Credits in the II semester (Total of column 4) : 24
Points secured in II semester (Total of column 6) : 201
SGPA (II Semester): (Column 6/ Column 2) :7.17857 Round off to 7.18
CGPA (II Semester) : (216.5 + 201) / (28 + 28) = 7.45535 Round off to 7.46

(ix) The SGPA/CGPA shall be awarded in each semester.

(x) SGPA/CGPA shall be rounded off to two decimal digits on higher side.

(xi) Final course merit will be decided based on absolute marks obtained by an individual student considering relevant merit rules of the Board. Revaluation result will be considered for deciding the merit of the students.

(xii) Conversion of Percentage to CGPA

Equivalent Percentage= [(10 x CGPA)-5]

(xiii) Award of Division: The division of the student shall be awarded in the following manner (subject to the passing of all the semester courses):

Table:7

1	CGPA≥7.5	1st Division with Honours
2	6.5 ≤CGPA< 7.5	1st Division
3	5 ≤ CGPA < 6.5	2nd Division
4	4 ≤ CGPA < 5	Pass

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