West Bengal State Council of Technical & Vocational Education and Skill Development (Technical Education Division)



## Curriculum Structure of

# Diploma in Electronics & Tele-Communication Engineering [ETCE] and Electronics & Communication Engineering [ECE]

Part-II (3<sup>rd</sup> & 4<sup>th</sup> Semester) and Part-III (5<sup>th</sup> & 6<sup>th</sup> Semester)

Revised 2022

Further suggestion may be submitted to the syllabus committee. List of the coordinators for the branch of Diploma in Electronics & Tele Communication Engineering are:

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#### TEACHING AND EXAMINATION SCHEME FOR DIPLOMA IN ENGINEERING COURSES

## COURSE NAME:FULL TIME DIPLOMA IN ETCE & ECE

## **DURATION OF COURSE:6 SEMESTERS**

## SEMESTER:THIRD

## BRANCH: ELECTRONICS & TELECOMMUNICATION ENGG. AND ELECTRONICS & COMMUNICATION ENGG.

SR.	SUBJECT	CREDITS	PER	IODS	EVALUATION SCHEME							
NO.			L	PR	THEORETICAL				PRACTICAL		Total Marks	
					ТА	СТ	Total	ESE	Internal	External		
1.	Principles of Electronic Communication	3	3	-	20	20	40	60	-	-	100	
2.	Electronic Devices and Circuits	3	3	-	20	20	40	60	-	-	100	
3.	Digital Electronics	3	3	-	20	20	40	60	-	-	100	
4.	Electric circuits and network	3	3	-	20	20	40	60	-	-	100	
5.	Computer Programming Language	3	3	-	20	20	40	60	-	-	100	
6.	Principles of Electronic Communication Lab	1	-	2	-	-	-	-	60	40	100	
7.	Electronic Devices and Circuits Laboratory	1	-	2	-	-	-	-	60	40	100	
8.	Digital Electronics Laboratory	1	-	2	•	-	-	-	60	40	100	
9.	Electric circuits and network Laboratory	1	-	2	-	-	-	-	60	40	100	
10.	Computer Programming Language Laboratory	1	-	2	-	-	-	-	60	40	100	
11.	Internship-I	1	-	-	-	-	-	-	-	-	100	
	Total	21	15	10	100	100	200	300	300	200	1100	

• STUDENT CONTACT HOURS PER WEEK: 25 hours

• ACADEMIC CONTACT WEEKS PER SEMESTER:17 weeks(Teaching-15 weeks + Internal Exam-2weeks)

• THEORY AND PRACTICAL PERIODS OF 60 MINUTES EACH

ABBREVIATIONS:L-Lecture, PR-Practical, IA-Internal Assessment, CT-Class Test, ESE-End Semester Exam

• IA (Internal Assessmentfor Theoretical)=40 marks: CT=20 Marks, Attendance=10 marks and

Quizzes/Assignment/Student Activity=10 marks.

• Minimum qualifying marks for both Theoretical and Sessional subjects (for internal assessment and external assessment separately) are 40%.

• IA (Internal Assessment for Practical)=60 marks:50 marks for continuous evaluation and 10 marks for Class attendance.

• Internship-I will be completely assessed internally.

#### TEACHING AND EXAMINATION SCHEME FOR DIPLOMA IN ENGINEERING COURSES

COURSE NAME: FULL TIME DIPLOMA IN ETCE & ECE

## **DURATION OF COURSE:6 SEMESTERS**

#### SEMESTER:FOURTH

## BRANCH: ELECTRONICS & TELECOMMUNICATION ENGG. AND ELECTRONICS & COMMUNICATION ENGG.

SR.	SUBJECT	CREDITS	PER	PERIODS EV				VALUATION SCHEME					
NO.			L	PR	THEORETICAL				PRACTICAL		TotalM arks		
					TA CT Total ESE			Internal	External				
1.	Microcontroller and its Applications	3	3	-	20	20	40	60	-	-	100		
2.	Consumer Electronics	3	3	-	20	20	40	60	-	-	100		
3.	Linear Integrated Circuits	3	4	-	20	20	40	60	-	-	100		
4.	Electronics Measurements and instrumentation	3	3	-	20	20	40	60	-	-	100		
5.	Digital and Microwave Communication Systems	3	3	-	20	20	40	60	-	-	100		
6.	Microcontroller and its Applications Lab	1	-	2	-	-	-	-	60	40	100		
7.	Consumer Electronics Lab	1	-	2	-	-	-	-	60	40	100		
8.	Linear Integrated Circuits Lab	1	-	2	-	-	-	-	60	40	100		
9.	Electronics Measurements and instrumentation Lab	1	-	2	-	-	-	-	60	40	100		
10.	Digital and Microwave Communication Systems Lab	1	-	2	-	-	-	-	60	40	100		
	Total	20	16	10	100	100	200	300	300	200	1000		

• STUDENT CONTACT HOURS PER WEEK: 26 hours

ACADEMIC CONTACT WEEKS PER SEMESTER:17 weeks (Teaching-15 weeks + Internal Exam-2 weeks)

• THEORY AND PRACTICAL PERIODS OF 60 MINUTES EACH

ABBREVIATIONS:L- Lecture, PR-Practical, IA- Internal Assessment, CT- Class Test, ESE-End Semester Exam

• IA (Internal Assessment for Theoretical)=40 marks:CT=20 Marks, Attendance=10 marks and Quizzes/Assignment/Student Activity=10 marks.

• Minimum qualifying marks for both Theoretical and Sessional subjects (for internal assessment and external assessment separately) are 40%.

• IA (Internal Assessment for Practical)=60 marks:50 marks for continuous evaluation and 10 marks for Class attendance.

### TEACHING AND EXAMINATION SCHEME FOR DIPLOMA IN ENGINEERING COURSES

## COURSE NAME:FULL TIME DIPLOMA IN ETCE & ECE

DURATION OF COURSE: 6 SEMESTERS

## SEMESTER: FIFTH

## BRANCH: ELECTRONICS & TELECOMMUNICATION ENGG. AND ELECTRONICS & COMMUNICATION ENGG.

SR.	SUBJECT	CREDITS	PER	IODS			EVALUA	CHEME	HEME			
NO.			L	PR	THEORETICAL				PRACTICAL		Total Marks	
					ТА	СТ	Total	ESE	Internal	External		
1.	Embedded Systems	3	3	-	20	20	40	60	-	-	100	
2.	Advanced Communication System	3	3	-	20	20	40	60	-	-	100	
3.	Industrial Electronics	3	3	-	20	20	40	60	-	-	100	
	Or Medical Electronics											
4.	Internet of Things	3	3	-	20	20	40	60	-	-	100	
	Or Mobile Communication											
5.	Embedded Systems Lab	1	-	2	-	-	-	-	60	40	100	
6.	Advanced Communication System Lab	1	-	2	-	-	-	-	60	40	100	
7.	Industrial Electronics Lab	1	-	2	-	-	-	-	60	40	100	
	Or Medical Electronics Lab											
8.	Hands on Internet of Things	1	-	2	-	-	-	-	60	40	100	
	Or Mobile Communication											
9.	Project	2	-	4	-	-	-	-	60	40	100	
10.	Internship-II	1	-	-	-	-	-	-	-	-	100	
	Total	19	12	12	80	80	160	240	300	200	1000	

• STUDENT CONTACT HOURS PER WEEK: 24+2 = 26 hours (2 hours for Library)

• ACADEMIC CONTACT WEEKS PER SEMESTER : 17 weeks (Teaching-15 weeks + Internal Exam-2 weeks)

• THEORY AND PRACTICAL PERIODS OF 60 MINUTES EACH

ABBREVIATIONS: L- Lecture, PR- Practical, IA- Internal Assessment, CT- Class Test, ESE- End Semester Exam

• IA (Internal Assessment for Theoretical) = 40 marks: CT= 20 Marks, Attendance =10 marks and Quizzes/Assignment/Student Activity = 10 marks.

• Minimum qualifying marks for both Theoretical and Sessional subjects (for internal assessment and external assessment separately) are 40%.

• IA (Internal Assessment for Practical) =60 marks: 50 marks for continuous evaluation and 10 marks for Class attendance.

• Internship-II will be completely assessed internally.

#### TEACHING AND EXAMINATION SCHEME FOR DIPLOMA IN ENGINEERING COURSES

## COURSE NAME:FULL TIME DIPLOMA IN ETCE & ECE

**DURATION OF COURSE: 6 SEMESTERS** 

## SEMESTER: SIXTH

## BRANCH: ELECTRONICS & TELECOMMUNICATION ENGG. AND ELECTRONICS & COMMUNICATION ENGG.

SR.	SUBJECT	CREDITS	PER	IODS	EVALUATION SCHEME						
NO.			L	PR	THEORETICAL				PRACTICAL		Total Marks
					ТА	СТ	Total	ESE	Internal	External	
1.	Engineering Economics and Project Management	3	3	-	20	20	40	60	-	-	100
2.	Entrepreneurship and Startups	3	3	-	20	20	40	60	-	-	100
3.	Industrial Automation or Control System and PLC	3	3	-	20	20	40	60	-	-	100
4.	Computer Networking and Data Communication	3	3	-	20	20	40	60	-	-	100
5.	Open Elective (Select any one) i) Industrial Management ii) Environmental Engineering & Science iii) Renewable Energy	3	3	-	20	20	40	60	-	-	100
6.	Computer Networking and Data Communication Lab	1	-	2	-	-	-	-	60	40	100
7.	Industrial Automation Lab or Control System and PLC Lab	1	-	2	-	-	-	-	60	40	100
8.	Project	3	-	4	-	-	-	-	60	40	100
9.	Seminar	2	-	2	-	-	-	-	60	40	100
	Total	22	15	10	100	100	200	300	240	160	900

• STUDENT CONTACT HOURS PER WEEK: 25 hours

ACADEMIC CONTACT WEEKS PER SEMESTER:17 weeks(Teaching-15 weeks + Internal Exam-2 weeks)

• THEORY AND PRACTICAL PERIODS OF 60 MINUTES EACH

ABBREVIATIONS:L- Lecture, PR-Practical, IA- Internal Assessment, CT- Class Test, ESE-End Semester Exam

• IA (Internal Assessment for Theoretical)=40 marks: CT=20 Marks, Attendance=10 marks

and Quizzes/Assignment/Student Activity=10 marks.

• Minimum qualifying marks for both Theoretical and Sessional subjects (for internal assessment and external assessment separately) are 40%.

• IA (Internal Assessment for Practical)=60 marks:50 marks for continuous evaluation and 10 marks for Class attendance.

• Seminar topics should be relevant to the corresponding disciplines.