STUDY AND EVALUATION SCHEME

FOR

1. ELECTRONICS & COMMUNICATION ENGINEERING
2. ELECTRONICS ENGINEERING (DIGITAL ELECTRONICS)
3. ELECTRONICS ENGINEERING (MEDICAL ELECTRONICS)

SEMESTER - I

Code No.	Subject	Study Scheme Period/Week			Evaluation Scheme						Total Marks
		L	T	P	Internal Assessment		External Assessment Exam				
					Theory	Practical	Written Paper		Practical		
					Max Marks	Max. Marks	Max. Marks	Hrs.	Max. Marks	Hrs.	
*1	Communication Techniques – I	3	2	-	50	-	100	3	-	-	150
*2	Applied Maths – I	3	2	-	50	-	100	3	-	-	150
*3	Applied Physics	4	-	3	50	25	100	3	50	3	225
4	Basic Electricity	4	-	3	50	25	100	3	50	3	225
5	Introduction to Computers	1	-	4	-	25	-		100	3	125
6	Mechanical Workshop	-	-	6	-	50	-	-	100	3	150
**	Student Centered activities	-	-	5							
	TOTAL	15	4	21	200	125	400		300		1025

* Subjects common with Mechanical, Production, Automobile Engineering, Civil

** Student centered activities will include: extension lectures, field visits, Soft Skills, seminars, debates, hobby clubs, library studies, awareness regarding ecology and environment, conservation of energy (Petroleum products, electricity etc), social service camps and other co-curricular activities including games. Advanced planning for each semester has got to be made

STUDY AND EVALUATION SCHEME

FOR

1. ELECTRONICS & COMMUNICATION ENGINEERING
2. ELECTRONICS ENGINEERING (DIGITAL ELECTRONICS)
3. ELECTRONICS ENGINEERING (MEDICAL ELECTRONICS)

SEMESTER - II

Code No.	Subject	Study Scheme Period/Week			Evaluation Scheme						Total Marks
		L	T	P	Internal Assessment		External Assessment Exam				
					Theory	Practical	Written Paper		Practical		
					Max Marks	Max. Marks	Max. Marks	Hrs.	Max. Marks	Hrs.	
*1	Communication Techniques - II	3	-	-	50	-	100	3	-	-	150
*2	Applied Maths - II	3	2	-	50	-	100	3	-	-	150
3	Electrical Machines	3	-	3	50	25	100	3	50	3	225
4	Electronic Components and Materials	4	-	-	50	-	100	3	-	-	150
5	Electronic Devices and Circuits - I	3	1	3	50	25	100	3	50	3	225
6	Electrical & Electronics Workshop	-	-	6	-	50	-	-	100	3	150
7	Engineering Drawing	-	-	6	-	25	100	3	-	-	125
**	Student Centered activities	-	-	3							
	TOTAL	16	3	21	250	125	600	-	200	-	1175

* Subjects common with Mechanical, Production, Automobile Engineering, Civil

** Student centered activities will include: extension lectures, field visits, Soft Skills, seminars, debates, hobby clubs, library studies, awareness regarding ecology and environment, conservation of energy (Petroleum products, electricity etc), social service camps and other co-curricular activities including games. Advanced planning for each semester has got to be made

STUDY AND EVALUATION SCHEME
FOR PART-TIME (8 Semester)
ELECTRONICS & COMMUNICATION ENGINEERING

EMESTER - I

od e do	Subject	Study Scheme Period/Week			Evaluation Scheme						Total Marks
		L	T	P	Internal Assessment		External Assessment Exam				
					Theory	Practical	Written Paper		Practical		
					Max Marks	Max Marks	Max Marks	Hrs	Max Marks	Hrs	
*1	Communication Techniques - I	3	2	-	50	-	100	3	-	-	150
*2	Applied Maths - I	3	2	-	50	-	100	3	-	-	150
*3	Applied Physics	4	-	3	50	25	100	3	50	3	225
4	Basic Electricity	4	-	3	50	25	100	3	50	3	225
5	Engineering Drawing	-	-	6	-	25	100	3	-	-	125
**	Student Centered activities	-	-	-	-	-	-	-	-	-	-
	TOTAL	14	4	12	200	75	500		100		875

* Subjects common with Mechanical, Production, Automobile Engineering

** Student centered activities will include: extension lectures, field visits, Soft Skills, seminars, debates, hobby clubs, library studies, awareness regarding ecology and environment, conservation of energy (Petroleum products, electricity etc), social service camps and other co-curricular activities including games. Advanced planning for each semester has got to be made

STUDY AND EVALUATION SCHEME
FOR PART-TIME (8 Semester)
ELECTRONICS & COMMUNICATION ENGINEERING

MESTER - II

e	Subject	Study Scheme Period/Week			Evaluation Scheme						Total Marks
		L	T	P	Internal Assessment		External Assessment Exam				
					Theory	Practical	Written Paper		Practical		
					Max Marks	Max. Marks	Max. Marks	Hrs.	Max. Marks	Hrs.	
	Communication Techniques - II	3	-	-	50	-	100	3	-	-	150
	Applied Maths - II	3	2	-	50	-	100	3	-	-	150
	Electrical Machines	3	-	3	50	25	100	3	50	3	225
	Electronic Devices and Circuits – I	3	1	3	50	25	100	3	50	3	225
	Mechanical Workshop	-	-	6	-	50	-	-	100	3	150
	Student Centered activities	-	3	-							
	TOTAL	12	6	12	200	100	400	-	200	-	900

Subjects common with Mechanical, Production, Automobile Engineering

Student centered activities will include: extension lectures, field visits, Soft Skills, seminars, debates, clubs, library studies, awareness regarding ecology and environment, conservation of energy (Petroleum cts, electricity etc), social service camps and other co-curricular activities including games. Advanced ing for each semester has got to be made

COMMUNICATION TECHNIQUES – I

L	T	P
3	2	-

RATIONALE

This course aims at developing reading, writing and communications skills in the students so as to develop confidence in them in written and oral techniques of communication in English language. This course will also help the students in their continuing education needs.

NOTE: Weightage of each topic for external examination is given in the brackets

DETAILED CONTENTS

1. The Prose Textbook entitled "A Book of English for Polytechnic Students", prepared by National Institute of Technical Teachers' Training and Research (NITTTR), Chandigarh and published by Macmillan India Limited. (30%)
   Questions to test the comprehension and critical appraisal of the lesson are to be given. Three questions out of five are to be attempted. Word limit for answer is to be approximately 150 words each.

2. **Vocabulary** (10%)
   Antonyms, synonyms, homonyms and one word substitution.

3. **Grammar** (20%)
   A brief review of easy forms of tenses (present indefinite, present continuous, present perfect, present perfect continuous, past indefinite, past continuous, past perfect, past perfect continuous and future indefinite). Conversions of direct into indirect narration and vice versa (only simple sentence) Punctuation articles, prepositions, voice, auxiliary (be, have, do and models).

4. **Comprehension:** (20%)
   A passage of 100 – 150 words may be given to test the comprehension skill of the students. Simple question to test the understanding of the contents and vocabulary may be given.

5. **Essay** (20%)
   Choice of attempting one out of three topics may be given. The essay will be of 300 – 350 words. Descriptive, narrative and reflective topics from areas such as science, technology, environment, current problems, and socio-economic issues may be given.

Guidelines for Tutorials

1. Telephonic conversation – Making and Receiving Calls
2. Mock exercises on interview for a job.
3. Group discussions on current issues
4. Listening comprehension from Radio or TV talk in English
5. Extempore speech / Declaimation contest
6. Presentation of a report with the help of Audio-Visual aids.

APPLIED MATHEMATICS – I

ATIONALE

e course aims at developing analytical abilities in basics of applied mathematics such as ctor algebra, matrices, elementary numerical analysis, coordinate geometry, differential d integral calculus and solution of first order differential equations. Besides application of ove the elements in engineering, the course of study will also provide continuing education se to them.

OTE: Weightage of each topic for external examination is given in the brackets

DETAILED CONTENTS

ALGEBRA 15%

(i) Arithmetic Progression (A.P.) – its n^{th} term, sum to n terms. Geometric Progression (G.P.) - its n^{th} term, sum to n terms. And infinite Geometric series.

(ii) Partial Fractions.

(iii) Binomial theorem for positive integral index (without proof), Binomial theorem for any index, Expansions.

TRIGONOMETRY 15%

(i) Sum and difference formulas for trigonometric ratios of angles and their application (without proof). Formula from product to sum, difference and vice-versa. Ratio of multiple angles, sub multiple angles (like 2A, 3A, A/2).

(ii) In a triangle sine formulas, cosine formulas, Napier's analogy. Solution of triangle.

(iii) Simple problems on height and distance.

(iv) Plotting of curves y = f(x), f(x) being algebraic function (maximum upto third degree) or trigonometric functions (Sine, Cosine, Tangent).

3. **COORDINATE GEOMETRY** 40%

(i) Equation of straight line in various standard forms. Intersection of two straight lines and angle between them. Concurrent lines, perpendicular distance formula.

(ii) General equation of a circle and its characteristics. Equation of a circle given center and radius, three point form and diametrical form.

(iii) Definition of a conic section, standard equation of a parabola equation of parabola given its focus and Directrix. Given the equation of parabola finding its focus axis, vertex, Directrix and latus section.

(iv) Ellipse and hyperbola (standard equation, without derivation) determining the equation of ellipse and hyperbola given the Directrix, focus and eccentricity. Given the equation of the ellipse and hyperbola finding the foci, Directrices, axes, latus rectum, vertex and eccentricity.