Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : Second
Subject Title : Mathematics-II
Subject Code : 132MA21b

Teaching & Examination Schemes

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		TW		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	2	-	3	80	32	20	100	40	-	-	-	-	25	10	125

Rationale:

The study of mathematics is necessary to develop in the student, the skills essential for studying engineering subjects. The subject is an extension of basic mathematics of first semester which is a prerequisite for engineering studies.

Objective:

1. To lay a strong foundation in study of calculus which is the backbone for study in engineering.
2. To make students well versed in the prerequisites for further studies in mathematics and engineering.

Sr. No.	Contents	L	M
	Section- I		
1	**Function** 1.1 Definition of function. 1.2 Types of Functions: Polynomial, constant, explicit function, implicit function, periodic function, even and odd functions, inverse function, exponential function, logarithmic function, composite function. 1.3 Simple problems based on function.	05	10
2	**Limits** 2.1 Concept of limit of a function. 2.2 Theorems on limits (Without proof) 2.3 Limits of algebraic, trigonometric functions. 2.4 Standard limits	10	10

3	**Derivatives** 3.1 Derivatives of standard functions by first principle. 3.2 Rules of differentiation. 3.3 Derivative of composite function. (chain rule). 3.4 Derivative of implicit function, parametric function. 3.5 Logarithmic differentiation.	11	20
	Section- II		
4	**Second ordered derivative.**	02	04
5	**Applications of derivatives** 5.1 Equation of tangent and normal to the given curve. 5.2 Maxima and minima of function. 5.3 Rate problems.	10	16
6	**Partial derivatives** Partial derivatives of first order of functions of two variables.	02	06
7	**Vector Algebra** 7.1 Definition of vector, types of vector, vector addition, subtraction, multiplication by scalar. 7.2 Dot product, cross product and their properties.	08	14
	Total	**48**	**80**

REFERENCE BOOKS:

1) Basic Mathematics – II by B.M.Patel, J.M.Rawal and others - Nirali Prakashan**,** 6th edition -Jan 2010
2) Mathematics for Polytechnic - S. P. Deshpande- Pune Vidyarthi Griha Prakashan, Revised edition – Aug.2010

Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **Second**
Subject Title : **Chemistry**
Subject Code : **132CH22**

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		OR		TW		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	-	2	3	80	32	20	100	40	25	10	-	-	25	10	150

Rationale:–
Chemistry is a basic science subject which is essential to all engineering courses. It gives knowledge of engineering materials, their properties, related applications & selection of materials for engineering applications. The contents of this curriculum provide knowledge of cells and batteries, selection of appropriate materials for engineering applications and methods of protection by metallic and non-metallic coatings. This subject will generate curiosity of carrying out further development in engineering fields.

Objectives:–
1. To understand mole concept and volumetric analysis.
2. To represent the formation of bonds in molecules.
3. Generalize different factors which affect atmospheric as well as electrochemical Corrosion.
4. Know various insulating or dielectric materials used for electronic equipments and computers.
5. To identify the properties of metal, alloys and other chemical compounds related to engineering applications.

Syllabus

Part – I : Theory

SECTION - I				
No.	**Chapter**	**Contents**	**L**	**M**
1	**Atomic Structure and Chemical Bonding**	Definitions of Elements, atoms, Molecules, Definition of atomic number, atomic mass number, Isotopes and Isobars, Electronic configuration of elements, Definitions: atomic weight, equivalent weights of an element, Molecular weight, Mole in terms of number, mass, volume, Determination of percentage composition of an element in a given molecule, Chemical bond, octet rule, formation of various types of chemical bonds: Covalent, Ionic, Coordinate covalent bonds along with examples CH_4, H_2, O_2, N_2, NaCl, $MgCl_2$, H_3O^+, NH_4^+, BF_3-NH_3	06	12

2	**Ionic Equilibrium:**	Definitions & theories of acids & bases:Classical theory, Arrhenius theory, Lowry-Bronsted theory,Lewis theory, pH, pOH, pH scale, Numericals, Basicity of an acid and acidity of a base, Numericals of Equivalent weight of acids, bases, Definition of salts & types of salts: Normal, Acidic, Basic, Mixed, Double salts, complex salts, Electrolytes, Types of Electrolytes, Degree of dissociation, Conductivity of Electrolytes – Concept of Ohms Law, Specific Conductivity, Specific Resistance, Equivalent Conductivity & Molar Conductivity, Variation of Specific & Equivalent Conductance with dilution, Definition of Cell Constant	08	10
3	**Solution**	Solution, Concentrations of solution: Grams per litre, Percentage by weight or volume, Normality, Morality, Molality. Volumetric analysis, Titrations, Acid base titration, Acidimetry, Akalimetry, Redox titration, Iodometric titrations, Complexometric titration, Precipitation titration.	06	10
4	**Redox Reactions**	Introduction, Oxidation, Reduction, Electron transfer concept, Oxidising & reducing agents.	02	08
		SECTION - II		
5	**Metals and Alloys**	Metals: Definition of Metallurgy, Important Ores of Copper, Metallurgy of Copper, Physical & Chemical Properties (Action of Air, Water & Acids), Uses of Copper, Important Ores of Aluminium, Extraction of Aluminium from Alumina by Electrolytic Reduction Process, Electrolytic Refining of Aluminium, Engineering Properties of Aluminium & Uses Alloys Definition, Compositions, Properties & Applications of Soft Solder, Tinmann's Solder, Brazing Alloy, Plumber's Solder, Rose Metal.	05	08
6	**Electrochemistry**	Electrochemistry, Electrochemical reactions, Construction and working of electrochemical cell & electrolytic cell, Faradays I & II laws of electrolysis, Applications of electrolysis: electroplating & refining, Electrochemical cells and batteries, Construction, working and applications of dry cells, Lead acid storage batteries, Lithium Ion Polymrr cells, fuel cells	07	12
7	**Corrosion**	Introduction, Types of corrosion Atmospheric corrosion, oxide films, factors affecting Atmospheric corrosion, electrochemical corrosion, mechanism of electrochemical corrosion, galvanic corrosion, protective measures against corrosion: electrochemical protection by sacrificial anodic protection and impressed current, cathodic protection coatings (galvanic and zinc, organic coating agents,	07	10

		Electroplating, metal cladding,).		
8	**Lubricants and Insulators**	Lubricant, Functions of lubricant, Types of lubricants with examples, Ideal lubricant and properties: Viscosity, Viscosity index, fire point, flash point, pour point, cloud point, Saponification value, Acid value **Insulators** Definition of Dielectrics and Insulators, Classifications of Insulating Materials, Properties & Applications of Inert Gases, Silicone Fluids, Mineral Oil or Transformer Oil, Teflon, Epoxy Resin, Ceramics, Glass, Mica, Mylar.	07	10
		Total	**48**	**80**

Part II:- Practicals

List of experiments:-

1. To study the use of indicators, for identification of acid, base and neutral solutions from the given set of solutions.
2. To standardize HCl solution using N/10 Na_2CO_3.
3. To standardize $KMnO_4$ solution using N/10 $C_2H_2O_4$ solution.
4. To determine strength of the mixture of H_2SO_4 + $C_2H_2O_4$ using NaOH and $KMnO_4$ solution.
5. To determine the amount of ferrous sulphate or ferrous ammonium sulphates in the given solution using $KMnO_4$ solution.
6. To standardize $K_2Cr_2O_7$ solution using N/10 $Na_2S_2O_3$ solution.
7. To determine the amount of ferrous sulphate or ferrous ammonium sulphates in the given solution using $K_2Cr_2O_7$ solution.
8. To determine the amount of copper sulphate in the given solution using $Na_2S_2O_3$ solution.
9. To standardize EDTA solution using N/10 $ZnSO_4$ solution.
10. To standardize $AgNO_3$ solution using NaCl solution.

Learning Resources:

Text Books

1. Essentials of Physical chemistry B. S. Bhal & G. D. Tuli, Edition: 18^{Th} (2010) S Chand Group,New Delhi.
2. Engineering Chemistry Jain & Jain Dhanpat Rai & Co. (Pvt.) Delhi – 110006 Ltd Edition: Fifteenth (2008)

Reference books

A Text Book of Chemistry Shashi Chawla Educational & Technical Publishers Dhanpat Rai & Co. (Pvt.) Ltd, Edition: Third (2005)

Course Name: Diploma in Electrical Engineering
Course Code : DEE
Semester : Second
Subject Title : Communication Skills- II
Subject Code : 132HM23z

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		TW		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	-	2*	3	80	32	20	100	40	-	-	-	-	50	20	150

Rationale:
The main objective of this subject is to enable students to develop effective communication skills. The basic concepts of oral, written and nonverbal communication will train them to become efficient and effective speakers. The study of Body Language will enable them to comprehend the effective use of gestures and posture. The students have been exposed to the Language Skills pertaining to English and principles of written communication will enhance their confidence and make them well versed in technical writing skills. In order to give students a proper exposure to good writing, a text book containing selected passages is introduced. Some inspirational stories and quotes will widen their horizons of knowledge and will also guide them to use these quotes in appropriate context.

Objectives:
The student will be able to:
1. Understand and use the basic concepts of communication and speak and write effectively.
2. Instill self-confidence and presence of mind through impromptu activities.
3. Drafting effective letters in the proper format.
4. Developing student's scientific curiosity through topics like scientific queries and the universe.
5. Make technical presentations to develop scientific bent of mind.

LEARNING STRUCTURE

Application:
Enable students to communicate effectively by using the concept of communication. Using appropriate oral, written and non-verbal skills.

Procedure:
1. Technique of providing responses to short and long questions
2. Principles governing the appropriate use of non verbal and oral skills
3. Technique of effective writing, speaking and reporting.

Principles:
1. Principles of comprehending the basic of communication
2. Principles of appropriation and contextualization of the use of body language
3. Principles of drafting coherent, logical and simple sentences

Concepts:
1. Concept of spoken, written and non-verbal types of communication

2. Concept of Body Language and spoken communication through presentations
3. Formats of letters, reports and technical descriptions.

Facts:
1. Theory of communication skills
2. Theory of Body Language
3. Formats of letters: official letters pertaining to day- to -day situations and campus related situations.

Syllabus

	Section I		
SR. NO.	**Name of Topic**	**L**	**M**
1	Communication Skills-II 1.1. Definition, Communication Cycle/process 1.2. The elements of communication: sender, message, channel, receiver, feedback and context 1.3. Definition of communication process 1.4. Stages in the process: defining the context, knowing the audience, designing the messages, encoding, selecting proper channels, transmitting, receiving, decoding and feedback 1.5. Introduction to effective oral communication 1.6. Communication Barriers and how to overcome them 1.7. Developing effective messages: thinking about purpose, knowing the audience, structuring the messages, selecting proper channels, minimizing barriers and facilitating feedback	16	40
	Section II		
2	**Various Aspects of language and communication** 2.1.Idioms used in day-today conversation and inter-industry communication 2.2.Phrasal verbs in conversation 2.3.Learning sentence structures to enhance writing skills and formal written communication 2.4. Correction of errors to eliminate commonly made mistakes while speaking and writing	02 02 02 02	10
3	**Introduction to Communication by way of presentation- process , types , barriers , body language.** **Effective Oral Communication** 3.4.Conversation through role play to understand barriers 3.5. Explaining proverbs orally in one's own words 3.7.Power point presentation on technical topics	06 02 02 02	10
4	**Effective Written Communication** 4.1.Drafting formal letters using appropriate style 4.2.Description of objects and process through power point presentation 4.3.Summarizing Newspaper Reports 4.4. Preparing a list of famous and inspirational quotes.	 06	10
5	**Formal Oral Skills**	06	10

	5.1.Speech Practices 5.2. Conversation sessions 5.3.Pronunciation and Diction 5.4.Success stories and character building Total no of tutorials.		
		48	80

Assignments:

1. Communication Cycle (with the help of diagram) and process (2 hrs)
2. Conversation sessions-enacting from newspaper report (4hrs)
3. Barriers that hinder a particular communication situation(1 hr)
4. Developing a story based on a proverb/ spin a yarn-(2hrs)
5. Speech sessions(3 hrs)
6. Identify the errors in sentences –(2hrs)
7. Description of objects and process (4 hrs)
8. Composition-2 hrs
9. Conversational Skills: Role Plays (6 hrs)
   Students are going to perform the role on any 6 situations, given by the teacher.
10. Dialogue writing for the given situations. (2 hrs-2 assignments
11. Newspaper Report Writing (4 hrs- 2 assignments)
    Write any two events from the newspaper as it is.
    Write any two events on the given situations by the teacher.

Skills to be developed:

Intellectual Skills:

1. Skills of Speaking in correct English
2. Compiling information and summarizing
3. Understanding the barriers in communication

Motor Skills:

1. Use of appropriate body language
2. Use of appropriate medium for communication
3. Assessing audience

Listening Skills:

1. Skills of listening and Comprehension

LANGUAGE LABORATORY :-

SR.NO	TOPIC	Practical Hours

1	**LISTENING SKILLS** • Introduction to listening skills, listening to recorded text, speeches of famous Indian orators and answering questions • Listening to conversations and panel discussions and encouraging students' comments. • Introduction to phonetics ; listening to the correct articulation of words • Recording and listening to one's own voice	**6**
2	**SPEAKING SKILLS** • Extempore • Role play and video recording • Mock interviews • JEST a minute • Technical quiz (to update knowledge in their respective discipline) • Correction of commonly mispronounced words	**6**
3	**READING SKILLS** • **Techniques of reading – silent reading and reading aloud** • **Summarization** • **Reading Passages** • Pause • Diction • Enunciation • Voice modulation • Posture • Accent • pitch	**4**
	Total	**16**

Learning Resources:

Text Book: Communication Skills II-
Compiled by Mrs. Thomas & Mrs. Krishnamurthy, H&M Dept

Reference Books:

1. Developing Communication Skills, Mohan Krushan, Banerji Meera, Macmillan, India, First Edition,,2000
2. Communication Skills, Bhattacharya Joyeeta, Reliable Skills, Mumbai, First Edition, 2003
3. Eveyones Guide to Effective Writing, J Ayakaran, Apple Publishing, First edition,2001.

Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **Second**
Subject Title : **Basics of Electrical Engineering**
Subject Code : **132EE24**

Teaching and Examination Scheme:-

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
				Theory		Test	Total		Practical		OR		TW		
L	T	P		Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	1	3	3	80	32	20	100	40	50	20	-	-	25	10	175

Rationale:-

The subject gives information of the basic circuit elements and network theorems using basic circuit elements. This helps the students in understanding the application and analysis of these elements.

Objectives:-

Students should be able to:

1) Apply Laws and Theorems to various series/parallel electric circuits.
2) Analyze the circuit performance with current and voltage sources.
3) Analyze circuit behavior of resistance, capacitance and inductance.
4) Explain transient behavior of capacitor charging and discharging circuit and RL transients.

Syllabus

Part I:- Theory

Sr. No	Contents	L	M
	Section I		
1	Electric Current and Ohm's Law Review of numerical based on series and parallel combination of resistor, capacitor and inductor. Review of numerical on current divison ,voltage division rule	02	05
2	Network Theorems (for DC circuits) Concept of Passive, Active, Unilateral & bilateral circuit. Kirchhoff's Laws, Maxwell's Loop Current (Mesh) Analysis, Nodal Analysis, Voltage source, Current source, source transformation. THEOREMS: Superposition, Thevenin's, Norton, Maximum Power Transfer, & Millman Theorem.Star/ Delta & Delta/ Star Transformations.	20	30
3	Work, Power and Energy Heating effect of Electric Current & Joule's Law of Electric Heating.	02	05
	Section II		
4	Electrostatics and Capacitance	10	17

	ELECTROSTATICS: Static Electricity, Absolute & Relative Permittivity of a Medium, Coulombs Laws of electrostatics, Electric Field, Electrostatic induction, Electric Flux, Electric flux Density, electric potential & energy, potential Difference, Breakdown voltage & dielectric strength. CAPACITANCE : Capacitor, Capacitance, parallel plate capacitor, multiplate capacitor, Cylindrical Capacitor,Capacitors in series & parallel, Energy stored in a capacitor, charging & discharging of a capacitor.		
5	Magnetism and Electromagnetism MAGNETISM:Absolute and Relative Permeabilities of a Medium, Laws of Magnetic Force, Magnetic field strength, Flux & Flux Density. ELECTROMAGNETISM: Oersted experiment, magnetic field, magnetic flux, magnetic flux density, Biot-Savart law, magnetic field near straight conductor and at the centre of current carrying coil, Force on a current carrying conductor lying in a magnetic field, Force between two parallel conductors. Magnetic circuit & related definitions, Composite Magnetic circuit, Problems based on calculation of Ampere Turns. Electric & Magnetic circuit comparison.	10	17
6	Electromagnetic Induction Production of induced emf and current, Faraday's Laws of Electromagnetic Induction, Lenz'sLaw, statically & dynamically Induced emf, self inductance, mutual inductance with example of transformer coupling coefficient,flemmings left hand and right hand rule magnetic hysteresis, energy stored in a magnetic field, Comparision of motor and generator	04	06
	Total	**48**	**80**

Part II:- Practicals

List of Laboratory Experiments:-
1) Verification of Kirchhoff's Current & Voltage Laws.
2) Study of Superposition Theorem.
3) Study of Thevenin's Theorem.
4) Study of Norton's Theorem
5) Study of Maximum Power Transfer Theorem.
6) Transient Response of RC charging & discharging circuits.

One problem for each of the above experiments should be performedon MULTISIM (Electronic Work Bench) software.

Learning Resources:-

Text Book :-

A text book of Electrical Technology Volume - I , 2005 Edition, by B L Theraja, A K Theraja, S Chand and Company Limited.

Reference Books :-

1) Electrical Technology, 8th Edition by Edward Hughes, , Pearson Education.
2) Circuits & Networks 4th Edition by Sudhakar & Shyammohan, (Tata McGraw - Hill Publishing Company Limited).

Engineering Circuit Analysis 6th Edition by William H. Hayt, Jr. &
Jack E. Kemmerly, (Tata McGraw - Hill Publishing Company Limited).

Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **Second**
Subject Title : **Electrical & Electronics Workshop Practice**
Subject Code : **132EE25**

Teaching and Examination Scheme:-

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
				Theory		Test	Total		Practical		OR		TW		
L	T	P		Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
1	-	3	-	-	-	-	-	-	-	-	-	-	50	20	50

Rationale:-

This subject will help the students in knowing the general working and faults occurring in the various common appliances.

Objectives:-

The student must be able to:

1) Identify the various parts of common household gadgets.
2) Explain the principle of operation of these gadgets.
3) Troubleshoot common faults that can occur in these gadgets.

Learning Structure:

Syllabus

Part 1:- Theory

Sr. No	Contents	L
1	Concepts of Electrical Wiring: a) House wiring b) Staircase wiring c) Office wiring d) Industrial wiring	4
2	Principle of operation: a) Ceiling Fan b) Table Fan c) Tube Light d) Mixer/Grinder e) Induction Heater f) Immersion Heater/Geyser g) Power Supply Eliminator h) Electronic Fan Regulator/Light Dimmer	8

3	a) Wiring and testing of AC 230V, single phase 50 Hz mains domestic supply board. b) Troubleshooting of faults occurring in the above gadget connections.	4
	Total	**16**

List of Laboratory Experiments:

1. Testing of ac mains connection using Tester & Test Lamp.
2. Domestic wiring practice of ceiling fan
3. Domestic wiring practice of table fan
4. Domestic wiring practice of tube light
5. Domestic wiring practice of water heater (Geyser).
6. Study of domestic electrical fan starter.
7. Study of domestic electronic fan speed regulator (Dimmer).
8. Wiring and testing of AC 230V, single phase 50 Hz mains domestic supply board. (With 3 on/off switches, 1 three pin plug, Two regulators)
9. Study & fabrication of general purpose dc power supply (Battery Eliminator).
10. (DC voltage 6 V to 15 V, 500 mA rating).
11. Study of mobile charger.
12. Study & fabrication of 1.2 V Nickel Metal Hydride (Ni-MH) battery charger.
13. Wiring and soldering of one circuit on a general purpose PCB.
14. Wiring and testing of AC 230V, 50 Hz extension supply board.

Reference Books :

1) Electrical wiring, Estimation and Costing, 6th Edition by S.L.Uppal (Khanna Publisher).
2) Power Supplies for all occasions 1st Edition by M C Sharma (BPB Publications).
3) Electrical Domestic Appliances, by Prof. D.U. Tatpuje
4) Study of Electrical Appliances, by K.B. Bhatia
5) How to repair Small Appliances Part I & II, by Jack Darr
6) Major Appliances Servicing, by P.T. Brockwell. Jr.

Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **Second**
Subject Title : **Electrical & Electronics Drawing**
Subject Code : **132EE26**

Teaching and Examination Scheme:-

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
				Theory		Test	Total		Practical		OR		TW		
L	T	P		Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
1	-	3	-	-	-	-	-	-	-	-	50	20	50	20	100

Rationale:-

Students have learned engineering drawing in Semester I course. Electrical & Electronics drawing requires the knowledge of engineering and machine drawing. In addition to this a large number of symbols are used in Electrical & Electronics drawing. The student thus requires the identification and use of these symbols.

OBJECTIVES: -

Students should be able to

1. Identify and use the symbols used in electrical & electronics circuits.
2. Draw, read and interpret drawings and circuit diagrams.
3. Prepare assembly drawings.

Learning Structure:

Syllabus

Part 1:- Theory

Sr. No	Contents	L
1	**Industrial Electrical & Electronic Symbols** Relays, Circuit Breaker, Limit Switches, Meter (Instrument), Pilot Lights, Inductors, Coils, Transformers, AC & DC Motors, Wiring, Connections, Resistors, Capacitors, Fuse, Bells, Buzzer, Horn, Siren, Batteries, Symbols Of Semiconductor Devices like Diodes, Transistors, SCR, Optoelectronic Devices & Others.	4
2	**Residential (House) Wiring of** e) Hall f) Kitchen g) Bedroom Residential Building wiring diagram scheme Office Wiring Industrial wiring	6
3	**Control Panel wiring**	2

4	**LV applications** 1) Fire Alarm & Smoke Detection System wiring diagram 2) Access Control System wiring 3) Closed Circuit Television (CCTV) wiring scheme	4
	Total	**16**

Part II:- Practical (Drawing Term work):

Minimum **six** sheets based on the above topics.

Reference Books:

1) Electrical & Electronics Drawing by Charles J Baer and J R Ottaway
2) Electronic Engineering Drawing by A K Mittal, Asian Publishers.
3) Electrical & Electronics Drawing by Charles J Baer and J R Ottaway
4) Electronic Engineering Drawing by A K Mittal, Asian Publishers.
5) Electrical Engineering Drawing, by K.L. Narang
6) Electrical Engineering Drawing, by S.K. Bhattacharya
7) Electrical Drawing & Estimating, by C.R.Dargan
8) Electrical Drawing - Part B, by Dr. H.P. Inamdar
9) Electrical Domestic Appliances, by Prof. D.U. Tatpuje
10) Study of Electrical Appliances, by K.B. Bhatia
11) Electrical Drawing & Workshop, by J.A. Rajani & Kale

Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : Second
Subject Title : Student Centered Activity/Test

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		P		O		TW		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-

Rationale:–

Most of the diploma holders join industries. Due to globalization and competition in the industrial and service sectors the selection for the job is based on campus interviews or competitive tests.

While selecting candidates a normal practice adopted is to see general confidence, ability to communicate and attitude, in addition to basic technological concepts.

The purpose of introducing professional practices is to provide opportunity to students to undergo activities which will enable them to develop confidence. Expert lectures, E-learning sources, E-library, Internet, seminars on technical topics and group discussion are planned in a semester so that there will be increased participation of students in learning process.

Objectives:

The Student will be able to:

1. Acquire information from different sources
2. Prepare notes for given topic
3. Present given topic in a seminar
4. Interact with peers to share thoughts
5. Take the advantages of E-learning sources