Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **First**
Subject Title : **Mathematics - I**
Subject Code : **32MA11a**

Teaching & Examination Scheme

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: -

Mathematics is the foundation stone for studies in all branches of Engineering. This subject helps students to develop logical thinking which in turn is useful in understanding the principles of all other subjects. Analytical and systematic approach towards any problem is developed by learning mathematics.

Objective: -

1. To teach students basic facts, concepts and principles of mathematics as a tool to analyze engineering problems.
2. To make students well versed in the prerequisites for further studies in mathematics and engineering.

Sr.No	Contents	L	M
	Section- I		
1	**Binomial Theorem** 1.1 Concepts of Permutations and Combinations and problems based on $^{n}P_{r}$, $^{n}C_{r}$ 1.2 Binomial Theorem with positive integral index, general term, Binomial expansion for negative integral and fractional index. .	08	10
2	**Matrices** 2.1 Matrices of order m x n, types of matrices, equality of matrices, 2.2 Addition and subtraction of matrices, multiplication of matrices. 2.3 Transpose of matrix, adjoint of matrix, inverse of matrix, 2.4 Solution of simultaneous linear equations by adjoint method.	08	12
3	**Straight lines** 3.1 Equations of straight lines in different forms. 3.2 Angle between two straight lines, conditions for two parallel and perpendicular straight lines.	05	08

4	**Complex Numbers** 4.1 Definition of complex number, Elementary operations. 4.2 Argand's Diagram, Modulus, Amplitude, Polar form of a complex number.	05	10
	Section-II		
5	**Trigonometry** 5.1 Circular measure of an angle, Conversion from degrees to radians and radians to degrees. 5.2 Trigonometric ratios of angle in four quadrants. 5.3 Compound angle formulae. 5.4 Allied angle formulae. 5.5 Product formulae, Sum or difference formulae. 5.6 Multiple, submultiples angle formulae. 5.7 Inverse trigonometric functions. 5.8 Properties of triangle: sine rule, cosine rule. (without proof)	16	28
6	**Determinants** 6.1 Determinant of order three. 6.2 Cramer's rule. 6.3 Properties of determinants.	06	12
	Total	**48**	**80**

REFERENCE BOOKS:

1. Basic Mathematics - B.M.Patel, J.M.Rawal and others - Nirali Prakashan.
2. Mathematics for Polytechnic - S. P. Deshpande- Pune Vidyarthi Griha Prakashan

Course Name : Diploma in Electrical Engineering.
Course Code : DEE
Semester : First
Subject Title : Physics
Subject Code : 132PH12

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	-	-	25	10	150

Rationale:–

Physics is the foundation of any engineering discipline. Its principles, laws, rules, results and conclusions drawn from observations and predictions of various phenomena occurring in nature; play important role in solving field problems in engineering and technology.

Though the span of physics is from quark to galaxy or particle physics to astrophysics; here certain topics are carefully selected for particular discipline. These topics will provide sufficient fundamental as well as background knowledge for the particular branch. Proper attention is given to the selection of sub-topics and their depth so that student will be able to cope up with innovations and new technologies in his field.

Various phenomena, principles, laws, rules discovered and invented by physics are used for industrial, engineering and technological applications. The overall growth of various engineering disciplines, namely, mechanical, electrical, electronics, civil and environmental and so on depends upon the development of physics and its detail understanding.

Objectives:–

Students should be able to;

- Identify different systems of units and convert units from one system to other as well as conversant with practical units.
- Solve problem on kinetics and kinematics.
- Analyze rectilinear, circular and simple harmonic motion and use it for solving engineering problems.
- Identify the phenomena of interference, diffraction and polarization of light and its industrial applications.
- Identify, analyze, discriminate and interpret logical sequence of field problems with the study of physics.

Syllabus

Part I:- Theory

No	Contents	L	M
	Section I		
1	**Measurements** 1.1 Units Necessity of measurement, concept of unit of a physical quantity, requirements of standard unit, Various system of units (CGS, MKS, SI, FPS), conversions, practical units, fundamental and derived physical quantities and their units, dimensions and dimensional analysis 1.2 Measuring instruments Vernier caliper, micrometer screw gauge, spherometer, thermometer, galvanometer, voltmeter, ammeter with least count and range, errors in them and correction to it.	6	10
2	**Properties of matter** 2.1 Elasticity Deformation, restoring force, stress, strain, Hooke's law, Moduli of elasticity (Young, bulk and rigidity), relation between them, problems, stress-strain diagram for some materials (steel, aluminium, cast iron, concrete), breaking stress, factor of safety. 2.2 Viscosity Newton's law of viscosity, coefficient of viscosity, unit, streamline and turbulent flow, critical velocity, Reynold's number, problems, Stokes' law, determination of viscosity, factors affecting viscosity. 2.3 Surface tension Cohesive and adhesive forces, angle of contact, surface tension, capillary action, problems, factors affecting surface tension.	11	16
3	**Kinetics** 3.1 Newton's laws of motion Momentum, impulse, impulsive force, Newton's laws of motion with equations and their applications, problems, pulleys, motion of lift. 3.2 Work, power and energy Definitions of work, power and energy, equations for potential energy and kinetic energy, work energy principle, representation of work by graph, torque, work done by torque, problems	7	14
	Section II		
4	**Kinematics** 4.1 Linear motion Equations of motion, distance traversed by object in nth second, velocity-time diagrams, uniform acceleration and retardation, equations for motion under gravity, problems 4.2 circular motion Angular displacement, angular velocity, angular acceleration, relation between angular velocity and linear velocity, equations of circular motion, angular distance traversed by object in nth second, S.H.M., uniform circular motion as	12	20

	S.H.M., equation for displacement, velocity and acceleration in SHM, problems, graphical representation of displacement, velocity and acceleration of particle performing SHM, starting from mean position and extreme position.		
5	**Optics** 5.1 Wave theory of light Huygen's theory, wavefronts, wavenormals, laws of reflection and refraction, total internal reflection, dispersion, angle of deviation, problems 5.2 Interference and diffraction Principle of superposition, constructive and destructive interference, conditions to obtain steady interference pattern, Young's double slit experiment, diffraction, single slit and many slits diffraction, grating, applications, problems. 5.3 Polarization Polarized and unpolarized light, qualitative treatment of polarizer and analyzer, polarimeter, applications	12	20
	Total	**48**	**80**

List of Laboratory experiments (10 experiments should be performed)

1. Use of vernier caliper and observations with traveling microscope
2. Use of micrometer screw gauge and observations with spectrometer
3. Determination of Young's modulus of material of wire using Searle's method.
4. To find "g" by Simple Pendulum.
5. Capillarity with different bores of capillary Tubes.
6. Determination of specific rotation/optical activity of given solution with polarimeter.
7. Determination of surface tension of liquid using capillary action
8. Determination of coefficient of viscosity using Stokes' method
9. Determination of Refractive Index of glass with Snell's law.
10. To determine wavelength of given Laser light using diffraction grating.
11. Calculation of grating element of given grating.
12. To determine the wavelength of given source of light using Newton's Rings Pattern.

Text Book: -

Engineering Physics by Gaur R. K. and Gupta S. L., Dhanpat Rai Publications, New Delhi, Eighth Edition, 2001., Physics Text Book of 11^{th} & 12^{th} std.(NCERT)

References:-

1. Fundamentals of Physics Extended, By Halliday D., Resnik R. and Walker, Wiley – India, New Delhi, Eighth Edition, 2008.
2. Physics for scientists and Engineers by Serway R. A. and Jewett, Jr. J. W., Thomson Learning (Indian reprint), New Delhi, Sixth Edition, 2007.

Course Name: Diploma in Electrical Engineering
Course Code : DEE
Semester : First
Subject Title : Communication Skills- I
Subject Code : 132HM13x

Teaching & Examination Scheme

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:
Technicians in industry require in grammatically correct written and oral communication. In order to develop the abilities in students a text has been introduced. The tutorials have been incorporated to provide practice to the students to develop writing skills. Further exercises have been included for improving oral communication, apart from the basic grammar topics.

Objectives:
Developing the skills of comprehension of passages, building vocabulary and ability to express through oral and written communication, improving skills of composition, and help them formulate grammatically correct sentences.

LEARNING STRUCTURE
Application:
To enable students to comprehend the meaning of new words, use grammar to write correct answer to the questions and develop paragraphs

Procedure:
1. Technique of providing responses to short and long questions
2. Technique of application of grammar
3. Procedure for writing paragraphs
4. Technique of referring to dictionary and thesaurus

Principles:
1. Principles of formation of sentences
2. Principles of identification of various aspects of grammar
3. Principles to develop the theme of paragraph

Concepts:
1. Concept of comprehending the text
2. Concept of Time
3. Concept of classifying types of paragraphs

Facts:
1. Content of the text

2. Part of speech: Tenses, Verbs etc.
3. Topic sentences

COURSE COTENTS: Theory

PART I: TEXT Section I	**Hours**	**Marks**
Communication Skills-I *Vocabulary-Understanding meaning of contextual words * Comprehension- Understanding the passage, discussing the theme and expressing it appropriately * Identifying parts of speech to improve day to day oral communication	**24**	**40**
Section II		
PART II: Application of Grammar * Verbs: Subject –verb- agreement * Using appropriate Tenses according to the suitability and time elements • Punctuation • Correction of commonly misspelled words • Identifying Common errors in English language	**24** Hours	15
PART III: Paragraph Writing/ Short composition * How to write a paragraph /short composition (Exercises given in assignment 4)		15
PART IV: Vocabulary Building * Word Formation *Technical vocabulary (usage of appropriate technical words in a passage) * use of synonyms/ antonyms/ homonyms /homophones * One word substitute		10

Term work will consist of 9 assignments.

Skills to be developed:

Intellectual Skills:
1. Skills of Speaking in correct English
2. Exploring details and its application.
3. Reporting Skills and expressing effectively

Motor Skills:
1. Use of appropriate body language
2. Diction and Enunciation

Listening Skills:
1. Skills of listening and Comprehension

List of Assignments:

1. Building Vocabulary – (12 hrs – 2 assignments)
   i) 25 words for each assignment.
   ii) Technical vocabulary- (2 hrs-1 assignment)

2. Grammar – (8 hrs – 2 assignments)
   i) Insert correct parts of speech in the sentences .
   (16 sentences – two each, from different part of speech)
   ii) Punctuate the sentences .(10 sentences)
   iii) Usage of appropriate spellings
   iv) Correction of tenses in the passages written by students.

3. Errors in English – (4 hrs- 2 assignments)
   i) Find out the errors and rewrite the sentences given by the teacher. (20 sentences)

4. Write paragraphs/ short composition on given topics (4 hrs)
   i) Engineers – Nation Builders
   ii) An unforgettable incident
   iii) Narrate your long term goal in life.
   iv) Biography of a person who inspired you.

Learning Resources:

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

Reference Books:

1. Contemporary English grammar, structure and composition, Green David, Macmillan, India, First edition, 2000.
2. English grammar and composition, R. C. Jain, Macmillan, India, First edition, 2005.
3. Thesaurus, Rodgers, Oriental Longman
4. Dictionary, Oxford, Oxford University
5. Dictionary, Longman, Oriental Longman
6. English for Practical purposes, Patil Z. N. et al, Macmillan, India, 2004
7. English at Workplace, Sanyal Mukti, Macmillan, India

Course Name : **Diploma in Electrical Engineering**
Course Code : **DEE**
Semester : **First**
Subject Title : **Elements of Electrical & Electronics Engineering**
Subject Code : **132EE14a**

Teaching and Examination Scheme:–

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

Rationale:–

Components play an important role in technology. This subject gives knowledge of the basic components, their construction characteristics, tolerance and application in Engineering field.

Objectives:–

Students should be able to :

1) Recognize the component and type of component.
2) Recognize the material used for the type of component.
3) Understand the construction and the working principle of the component.
4) Understand the specifications (ratings) of the component.
5) Test the component**.**

Syllabus
Part I:- Theory

Sr. No	Contents	L	M
	Section I		
1	**RESISTORS** : Basic concepts. Ohm's Law. Fixed and Variable type. **Fixed** : Carbon composition, carbon film, metal film, Ceramic & Vitreous Enamel wire-wound types. **Variable** : Rheostat, Carbon track and wire-wound potentiometers (Linear & Non-Linear), Preset resistors. Their construction, power rating, tolerance (accuracy) temperature coefficient, and typical applications. **E6, E12 & E24 series of resistors.** **Colour Code of Standard Resistors.** Series and parallel combinations of resistor(Numericals without derivation) Concept of Electric current,potential and potential difference Conductivity and conductance Current division rule for parallel and voltage division rule for series circuit	10	18
2	**CAPACITORS** : Definition and principle Fixed and Variable type.	7	11

	Fixed : Ceramic, Mica, Polyester and Electrolytic **Variable** : Air Gang and Trimmer. Their construction, voltage rating & typical applications. **Colour Coding of capacitors.** Series and parallel combination of capacitor		
3	**INDUCTORS :** Definition and principle Construction & application of air core, iron core, ferrite core, inductor coils(winding) used in Motors, Generators, Transformers, Tube-light chokes, D.C. power supply Filter chokes, loudspeakers and ignition system of vehicles. Series and parallel combination of inductor	7	11
	Section II		
4	**SWITCHES :** Types: Slide, Toggle, Push to ON, Push to OFF, Rocker, & Reed switches. Their construction & applications.	5	10
5	**SEMICONDUCTOR & OPTOELECTRONIC DEVICES** : **PN JUNCTION DIODES** :Germanium and Silicon. Introduction to intrinsic and extrinsic semiconductor **LIGHT DEPENDENT RESISTOR. (LDR)** **LED's :** Light Emitting Diodes – Red, Green, Yellow, Blue and Bicolor type. **DISPLAYS :** Seven Segment LED Display, 5 x 7 Dot Matrix LED Display, Liquid Crystal Display (LCD). Their construction, operation and applications.	16	26
6	i) Breadboard, Printed Circuit Board (PCB): Types and applications. ii) Soldering iron, solder wire and soldering techniques.	3	04
	TOTAL	**48**	**80**

Part II :- Practicals

List of Laboratory Experiments:-

1. To identify the value, tolerance of resistors and capacitors by colour code.
2. To measure the value of resistor/s using multimeter.
3. To test rheostat, linear potentiometer, logarithmic potentiometer, preset variable resistors.
4. Testing of LDR on multimeter.
5. Testing of Germanium, Silicon PN diodes on multimeter.
6. Use of breadboard & testing of different colour LED's, 7 segment LED Display on breadboard.
7. Testing of switches by measuring their contact resistance on multimeter.

NOTE: The students should bring Digital Multi Meter (DMM) , soldering iron, wire strippers (Cutters), & blade with them in the laboratory.

Learning Resources:-

Text Book: - Electronic Circuits Handbook, 3rd Edition by Michael H Tooley.
(BPB Publications).

Reference Books:-

1. Basic Electronics and Linear Circuits, 4th Edition by N N Bhargava, D C Kulshreshtha & S C Gupta. (Tata McGraw – Hill Publishing Company Limited)

2. Electronic Components & Materials, 2nd Edition by S M Dhir , (Tata McGraw - Hill Publishing Company Limited).

3. Electronic Components and Materials, 2nd Edition by Grover & Jamwal, Dhanpat Rai & Sons.

Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : First
Subject Title : Mechanical Workshop Practice
Subject Code : 132ME15

Teaching & 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	
1	-	3	-	-	-	-	-	-	-	-	-	-	50	20	50

Rationale:-
Mechanical diploma student is expected to know basic workshop practice like Wood working and hot working processes. The students are required to identify, operate and control various machines. The students are required to select and use various tools and equipments related to Wood working and smity processes.

Objectives:-
The student will able to
- Know basic workshop processes.
- Read and interpret job drawing.
- Identify, select and use various marking, measuring, holding, striking and cutting tools & equipments.
- Operate, control different machines and equipments.
- Inspect the job for specified dimensions.
- Produce jobs as per specified dimensions.
- Adopt safety practices while working on various machines.

Syllabus

Part I - Theory

Sr.No.	Contents	L
01	**ENGINEERING MATERIALS:** Introduction. Different types of ferrous and non-ferrous materials. Properties of Engineering materials**.**	2
02	**CARPENTRY SHOP:** Introduction. Various types of woods. Different types of tools, machines and accessories.	3
03	**FITTING SHOP:** Introduction Various marking, measuring, cutting, holding and striking tools. Different fitting operation like chipping, filing, right angle, marking, drilling, tapping etc.	3

	Working Principle of Drilling machine, Tapping dies, its use. Safety precautions and safety equipments.	
04	**WELDING SHOP:** Introduction. Types of welding, ARC welding, Gas welding, Gas Cutting. Welding of dissimilar materials, Selection of welding rod material, Size of welding rod and work piece. Different types of flame. Elementary symbolic representation. Safety precautions in welding, safety equipments and its use in welding processes.	**3**
05	**SHEET METAL WORKING**: Introduction. Various types of tools, equipments and accessories. Different types of operations in sheet metal shop. Soldering and riveting. Safety precautions.	**3**
06	**LATHE:** Introduction. Various operations performed on Lathe machine. Main parts of Lathe machine.	**2**
	Total	**16**

Part II- Practicals

Sr.No.	List of Practicals
01	**CARPENTRY SHOP:** Demonstration of different wood working tools / machines Demonstration of different wood working processes, like plaining, marking, chiseling, grooving, turning of wood etc. One simple job involving any one joint like mortise and tenon, dovetail, bridle, half lap etc.
02	**WOOD TURNING:** One simple job involving turning, step turning, ball turning operation on wood.
03	**SMITHY SHOP:** Demonstration of different forging tools and Power Hammer. Demonstration of different forging processes like shaping, caulking, fullering, setting down operation etc. One job like hook peg, flat chisel or any hardware item.
04	**FITTING SHOP:** Demonstration of different fitting tools and drilling machines and power tools. Demonstration of different operations like chipping, filing, drilling, tapping, cutting etc. One simple fitting job involving practice of chipping, filing, drilling, tapping, cutting etc.

05	**WELDING SHOP:** Demonstration of different welding tools / machines. Demonstration of Arc Welding, Gas Welding, Gas Cutting and rebuilding of broken parts with welding. One simple job involving butt and lap joint.
06	**SHEET METAL SHOP:** Demonstration of different sheet metal tools / machines. Demonstration of different sheet metal operations like sheet cutting, bending, edging, end curling, lancing, soldering and riveting. One simple job involving sheet metal operations and soldering and riveting.
	METAL TURNING: Demonstration of Lathe machine. Demonstration of various parts of Lathe machine. Demonstration of various operations performed on Lathe. One simple job involving plain turning, step turning and chamfering.

Learning Resources:-

Text Books:-

1. Mechanical Workshop Practice-K.C.John-PHI Learning Pvt Ltd. EEE 2010

Reference Books:-

1. B.S. Raghuwanshi- Workshop Technology – Dhanpat Rai and sons, New Delhi, 9 th Edition, 2002
2. S.K. Hajra Chaudhary- Workshop Technology Vol I & II – Media Promotors and Publisher, New Delhi. 8 th edition , 1986

Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : First
Subject Title : Engineering Graphics
Subject Code : 132ME16

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	
1	-	3	-	-	-	-	-	-	50	20	-	-	50	20	100

Rationale:–

This subject aims at making the students understand the fundamentals of Engineering Graphics which is a language used by Engineers for developing & expressing ideas & conveying the instructions which will be used to carry out jobs in the field of engineering.

The subject deals with drawing instruments & it's use, Sectional orthographic projections and isometric views. An introduction to computer drafting will be helpful in understanding the application of the subject in the industry. This subject will play very important role in designing, operation and maintenance areas of the existing and changing technological requirements of the modern world.

Objectives:

The student will able to

- Understand the fundamentals of Engineering Graphics
- Read and interpret object drawings.

Syllabus

No	Topic		Contents	Hrs
1	**Drawing Instruments & their uses**	1.1	Letters & Numbers (Single stroke Vertical)	3
		1.2	Convention of Lines & it's applications	
2	**Orthographic Projections**		2.1 Planes of projections – HP, VP & PP Orthographic projections of points. 2.2 Sectional Orthographic Projections of simple machine parts.(Full Section in one view)	8
3	**Pictorial Views-**		Isometric Projections and Isometric Views. (No problems with slots on inclined surfaces)	4
4	**Demonstration**		Demonstration of drafting software to the students.	1
			Total	**16**

Practicals

The students should workout the problems on the following topics preferably on quarter imperial drawing sheets during the practicals.

1. Eight Sheets on the topic of Orthographic Projections.
2. Two sheets on Isometric Projections.

Text Books:-

1. Engineering Drawing : N.D.Bhat , Charotar Publishers,49th Edition 2010
2. Engineering Graphics & Engineering – S.T.Ghan, M.V.Rawalani- Nirali Publications-seventh Edition -2009

References:-

1. Engineering Drawing- D.A.Jolhe - TATA McGraw Hill- 2008
2. Engineering Graphics- K.R.Mohan – Dhanpatrai publishing co.-Ist edition-2009

Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : First
Subject Title : Computer Applications
Subject Code : 132EE17

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	
-	-	2	-	-	-	-	-	-	-	-	-	-	50	20	50

Rationale: Computer plays very important role in human lives. Computers are now affecting every sphere of human activity and bringing about many changes in industry, government, education, medicine, scientific research, law, social sciences and even in arts like music and painting.

Objective: At the end of this course students will be able to

1. Understand the Components of computer system.
2. Understand the operating system (windows 7/XP).
3. Understand File Storage.
4. Use of Microsoft office.

Practicals

Term Work- Students should submit practical journal along with the print outs of assignments conducted during the practical.

List of practical's

1. Working with Windows 2000 desktop, start icon, taskbar, Recycle Bin, My Computer icon ,The Recycle Bin and deleted files. Creating shortcuts on the desktop
2. The Windows 2000 accessories
   WordPad – editing an existing document
   Use of Paint – drawing tools
   The Calculator, Clock
3. The Windows Explorer window, concept of drives, folders and files?
   Folder selection techniques, Switching drives, Folder creation
   Moving or copying files, Renaming, Deleting files, and folders
4. Printing :- Installing a printer driver, setting up a printer, Default and installed printers, Controlling print queues, Viewing installed fonts, The clipboard and 'drag and drop', Basic clipboard concepts, Linking vs. embedding

Working with Microsoft word

5. Moving through a Word document menu bar and drop down menus toolbars
6. Entering text into a Word 2007 document, selection techniques Deleting text
7. Font formatting keyboard shortcuts
8. Paragraph formatting

   Bullets and numbering
9. Page formatting what is page formatting? Page margins Page size and orientation

   Page breaks, Headers and footers
10. Introducing tables and columns
11. Printing within Word 2007 Print setup Printing options Print preview
12. Development of application using mail merge
13. Mail merging addresses for envelopes
14. Printing an addressed envelope and letter
15. Creating and using macros in a document

Preparing worksheet with Excel.

16. Creating and opening workbooks

    Entering data
17. Navigating in the worksheet

    Selecting items within Excel 2000

    Inserting and deleting cells, rows and column

    Moving between worksheets, saving worksheet, workbook

    Formatting and customizing data

    Formulas, functions and named ranges

    Creating, manipulating & changing the chart type

Preparing presentations with Microsoft Power Point.

18. Slides and presentations, Opening an existing presentation , Saving a presentation
19. Using the AutoContent wizard ,Starting the AutoContent wizard
20. Selecting a presentation type within the AutoContent wizard
21. Presentation type
22. Presentation titles, footers and slide number
23. Creating a simple text slide
24. Selecting a slide layout

25. Manipulating slide information within normal and outline view

26. Formatting and proofing text

27. Pictures and backgrounds

28. drawing toolbar

29. AutoShapes

30. Using clipart

31. Selecting objects

32. Grouping and un-grouping objects

33. The format painter. Creating and running a slide show

34. Navigating through a slide show

35. Slide show transitions

36. Slide show timings

37. Animation effects

Microsoft Internet Explorer 5 & the Internet

38. Connecting to the Internet

39. The Internet Explorer program window

40. The on-line web tutorial Using hyper links

41. Responding to an email link on a web page

42. Searching the Internet

43. Searching the web via Microsoft Internet Explorer

44. Searching the Internet using Web Crawler

45. Searching the Internet using Yahoo

46. Commonly used search engines

47. Favorites, security & customizing Explorer

48. Organizing Favorite web sites

49. Customizing options – general, security, contents, connection, programs, advanced

Using the Address Book

50. Adding a new contact

51. Creating a mailing group

52. Addressing a message

53. Finding an e-mail address

54. Using electronic mail

55. Starting Outlook Express

56. Using the Outlook Express window

57. Changing the window layout

58. Reading file attachment

59. Taking action on message-deleting, forwarding, replying

Email & newsgroups

60. Creating and sending emails

61. Attached files

62. Receiving emails

63. Locating and subscribing to newsgroups

64. Posting a message to a newsgroup

65. Chatting on internet.

66. Understating Microsoft chat environment

67. Chat toolbar.

Text Books:-

1. Introduction to computing systems, by Patt and Patel, Tata McGraw-Hill Publishing Company, Second Edition, 2007

Course Name : Diploma in Electrical Engineering
Course Code : DEE
Semester : First
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