

20PEB106P					ENGINEERING DRAWING					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hours/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
0	0	4	2	4	0	0	0	50	50	100

COURSE OBJECTIVES

- Demonstrate various graphical projections.
- Improve analytical skills to understand design blueprints.
- Improve skills to prepare designs blueprints for mechanical parts.
- Develop skills to plan site layout for exploration activities

Unit I

Hours 12

Introduction to Engineering Graphics. Drawing instruments and accessories, lines and dimensioning. BIS - SP46. Use of plane scales and Representative Fraction. Introduction to Engineering curves and their classification. Introduction to principal planes of projections. Projections of the points. Projections of line and True length of line determination when inclined to two reference planes.

.Unit II

Hours 10

Orthographic Projections: Principle of projection, Principal Planes of projection, Projections from the pictorial view of the object on the principal planes using first angle projection method and third angle projection method. Sectional View: Principle and applications

Unit III

Hours 10

Isometric Projections and Isometric View or Drawing: Isometric Scale, Conversion of orthographic views into isometric projection, isometric view or drawing.

Unit IV

Hours 20

Introduction to software such as AutoCAD and ProE/Soildworks. Understanding the fundamentals of 3D printing and application in oil and gas industries

Max<52 Hrs>

COURSE OUTCOMES

On completion of the course, student will be able to

CO1- Draw engineering curves and apply it for designing various equipment components.

CO2- Apply the concept of engineering scale and projection of line for various engineering application and preparation of geological maps.

CO3- Apply the concept for developing product for solids and sheet metal working.

CO4- Comprehend as well as prepare the orthographic drawings of parts and assembly for communication with engineers or workers for designing, analysis, manufacturing and marketing

CO5- Comprehend and develop the assembly drawings in three dimensions.

TEXT / REFERENCE BOOKS

1. N.D.Bhatt and V.M.Panchal "Engineering Drawing", Charotar Publishing House, Anand
2. K. Venugopal, "Engineering Drawing & Graphics", New Age International (P) Ltd.
3. D.A.Jolhe, "Engineering Drawing with an Introduction to AutoCAD", Tata McGraw-Hill Publishing Co.Ltd., New Delhi

END SEMESTER EXAMINATION QUESTION PAPER PATTERN

Max. Marks: 100

Exam Duration: 3 Hrs.

PART A: 10 Questions of 2 marks each-No choice

20 Marks

PART B: 2 Questions from each unit with internal choice, each carrying 16 marks

80 Marks