RGPV (DIPLOMA WING) BHOPAL	OBE CURRICULUM FOR THE COURSE	FORMAT-3	Sheet No. 1/3

Branch	COMMON to ALL	Semester	I/II

Course Code		Course Name -ENGINEERING DRAWING	

Course Outcome 1	Prepare basic engineering drawing formats	Teach Hrs	Marks
Learning Outcome 1	**Use the drawing instruments properly and improve their lettering and dimensioning skills**	10	05
Contents	Introduction of drawing instruments,Designation and sizes of drawing sheet and drawing board Planning of drawing sheet as per I.S.: 696-1972 (SP 46:1988). Introduction of type of lines and their applications. Single stroke vertical capital letters and numerals, Dimensioning:Elements of dimensioning,Dimensioning system. Dimensioning Different geometrical features		
Method of Assessment	*Internal: Mid Semester Exam - Pen paper test/ Drawing work assessment*		
Learning Outcome 2	**Understand the application of Architectural and Engineering Scales.**	5	10
Contents	Scale: Introduction of scales and their applications, Concept of reduced, enlarged and full size scale Classification of scales – plain, diagonal. Definition of R.F. Construction of plain and diagonal scales		
Method of Assessment	*EXTERNAL END SEM EXAM - Drawing work assessment*		
Course Outcome 2	**Translate geometrical details into engineering drawing**		
Learning Outcome 3	**Draw Conic curves, involutes and Cycloid.**	15	12
Contents	Geometrical construction & curves: Divide a line into any number of equal parts by parallel line method, Bisecting the line and angle. Construction of triangles and polygons (upto hexagon) Introduction of conic sections (curves), Construction of Ellipse by Eccentricity and Concentric circles methods, Construction of Parabola by Eccentricity and Rectangle methods, Construction of Hyperbola by Eccentricity method, Construction of cycloid ,		

	Involutes of circle and polygon. Construction of Archemedian spiral.		
Method of Assessment	*External : End semester Examination- Drawing work assessment*		
Course Outcome 3	**Draw projections of points, lines, planes and solids**		
Learning Outcome 4	**Draw the projections of point and lines inclined to one reference plane only.**	10	8
Contents	Definition of various term associated with theory of projection, Planes of projection, Quadrants, Introduction to first and third angle projection method. Projection of points in all the four quadrants. Projection of lines- - 1. Parallel to HP and VP both. - 2.Perpendicular to one plane and parallel to other. - 3.Inclined to one plane and parallel to other. - 4. line inclined to both the planes		
Method of Assessment	*External : End semester Examination- Drawing work assessment*		
Learning Outcome 5	**Draw the projection of planes & solids**	10	10
Contents	Projection of planes circle and polygon (upto hexagon)– Plane - 1Perpendicular to HP and VP both - 2 Perpendicular to one plane and parallel to other - 3.Inclined to one plane and perpendicular to other. Projection of solids: Projection of cylinder, cone, prism (upto hexagonal base)and pyramid (upto hexagonal base). Under the following conditions: - 1. Axis parallel to HP and VP - 2. Axis perpendicular to HP and parallel to VP - 3. Axis perpendicular to VP and parallel to HP - 4. Axis inclined to HP and parallel to VP. - 5. Axis inclined to VP and parallel to HP.		
Method of Assessment	*External : End semester Examination- Drawing work assessment*		
Course Outcome 4	**Draw the development of surfaces and section of solids**		
Learning Outcome 6	**Draw sectional views of solid**	10	05
Contents	Section of solids:-Section of cone, cylinder, prism (upto hexagonal base)and pyramid (upto hexagonal base). (Solid resting on its base in the HP i.e. the Axis perpendicular to HP and parallel to VP) in the following cases:		

	1 Section plane parallel to HP and perpendicular to VP 2 Section plane parallel to VP and perpendicular to HP 3 Section plane inclined to HP and perpendicular to VP. 4 Section plane inclined to VP and perpendicular to HP. - Drawing True shape of section.		
Method of Assessment	*In ternal : Test - Drawing work assessment*		
Learning Outcome 7	**Develop lateral surface of solids**	10	10
Contents	Development of lateral surface of solids: Introduction, Development of Cone, Cylinder, prism (upto hexagonal base)and pyramid (upto hexagonal base) (simple and truncated) under the condition solid resting on its base in the H.P. and axis perpendicular to H.P. and parallel to V.P.		
	Internal : Test Drawing work assessment		
Course Outcome 5	**Draw isometric view /orthographic projection**		
Learning Outcome8	**Apply basic principles of orthographic projection for conversion of pictorial views into orthographic views.**	14	10
Contents	Principles of orthographic projections, Selection of front view, Preparation of necessary orthographic views of simple objects from given pictorial views, Dimensioning orthographic views as per standard practice.		
Method of Assessment	*External: End semester Examination- Drawing work assessment*		
Learning Outcome 9	**Interpret isometric view**	6	10
Contents	Isometric view and projection:Concept of isometric view and isometric projection (Isometric Drawing),		
Method of Assessment	*Internal: Mid Semester Exam - Pen paper test/ Drawing work assessment*		
Learning Outcome 10	**Draw isometric view from given orthographic views**	10	10
Contents	Construction of isometric scale, Construction of isometric view and projection of polygon (up to hexagon) and circle.Construction of isometric view of cone, cylinder, prism (up to hexagonal base) and pyramid (up to hexagonal base) and their combinations solids, Isometric view and projection of simple solids.		
Method of Assessment	*External : End semester Examination- Drawing work assessment*		
Learning Outcome11	**Draw free hand sketching of multiple view from pictorial view**	10	10
Contents	Free hand sketching: Free hand sketching of orthographic and isometric views of simple objects		
	External : End semester Examination- Drawing work assessment		

External : End semester Examination		*70 marks*
Internal: Mid Semester Exam		*30 marks*
Total	*110 hr*	*100 marks*