SARDAR VALLABHBHAI PATEL INSTITUTE OF TECHNOLOGY, VASAD MCEHANICAL ENGINEERING DEPARTMENT

3rd TEST – ENGINEERING GRAPHICS & DESIGN (3110013) FY –1st SEMESTER (COMP & IT) – ACADEMIC YEAR 2021-22 TOTAL MARKS: 15 TIME: 50 minutes Date: 28/01/2022



			Mapping	
		Marks	CO (Course Outcome)	Cognitive Level (As per Revised Bloom's Taxonomy)
Q. 1	Draw Isometric view of a given Figure.1. Give dimensions using aligned method.	5	CO1, CO2	A, N
	OR			
Q. 1	Draw front view, and top view of Figure.2 using 3 rd angle projection method. Give dimensions using uni-directional method.	5	CO1, CO2	A, N
Q.2	In the crank connecting rod-trunnion mechanism as shown in Figure.3, crank OB is 400 mm long. Connecting link BA is 1800 mm long and trunnion C is located 1250 mm on the right of O and 150 mm below O. Draw the loci of points of A. OR	5	CO3	E, C
Q.2	A Link OA, 80 mm long oscillates around O, 60° to right side and returns to its initial vertical Position with uniform velocity. Meanwhile point P initially on O starts sliding downwards and reaches end A with uniform velocity. Draw locus of point P	5	CO3	E, C
Q.3	A square plate PQRS of side 35 mm is resting on corner P with diagonal PR making 30° with H.P. and diagonal QS inclined to V.P. by 60° and parallel to H.P. Draw the projections of the square plate. OR		CO4, CO5	R, U
Q.3	A hexagonal plane of 30 mm side has one of its sides on the H.P and inclined at 45 ⁰ to the V.P. The surface of the plane is inclined at 45 ⁰ to H.P. Draw its projections.	5	CO4, CO5	R, U

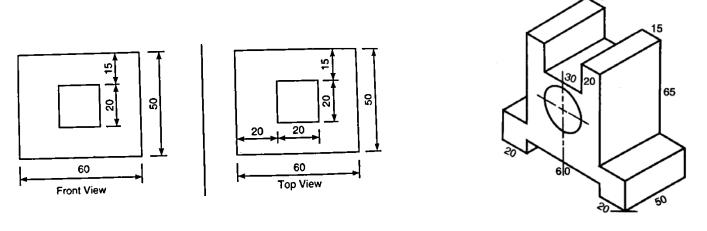


Figure.1 Figure.2

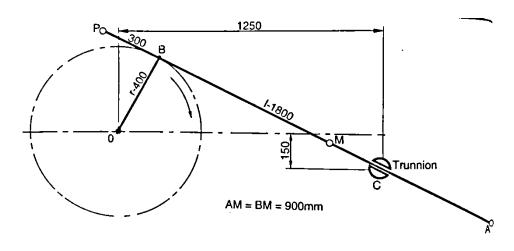


Figure.3

> Course Outcomes (COs)

CO-1	To understand the different projection systems. i.e. 1st angle system & 3rd angle system and the	
	difference between them.	
CO-2	To know how to obtain orthographic & isometric projections of an object.	
CO-3	To understand the loci & applications of different Engineering Curves.	
CO-4	To understand the application of projections of points, lines, planes & solids for real life objects.	
CO-5	To understand the effect of surface inclination with principle planes on projections of a plane &	
	development of surfaces.	
CO-6	To get familiar with designing softwares like AutoCAD.	

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate, C: Create (Revised Bloom's Taxonomy)