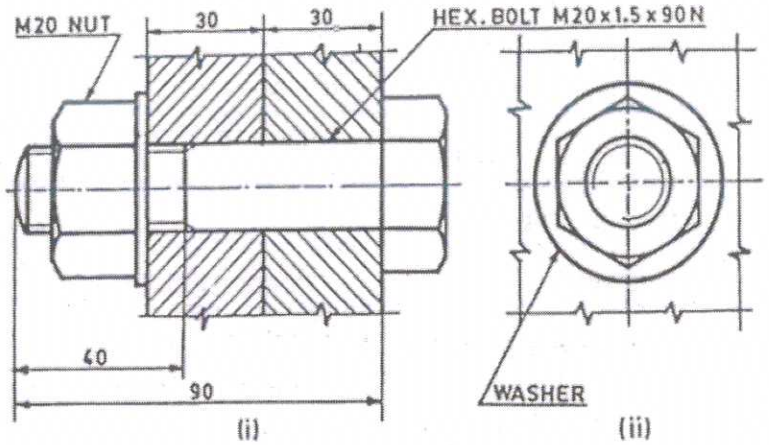
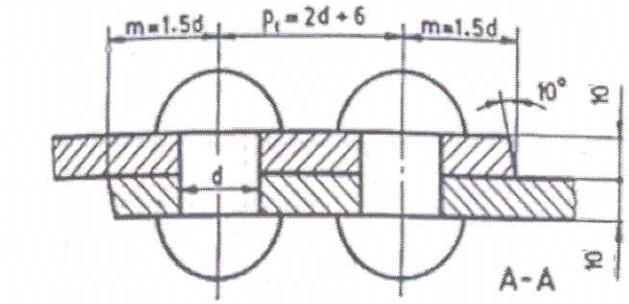
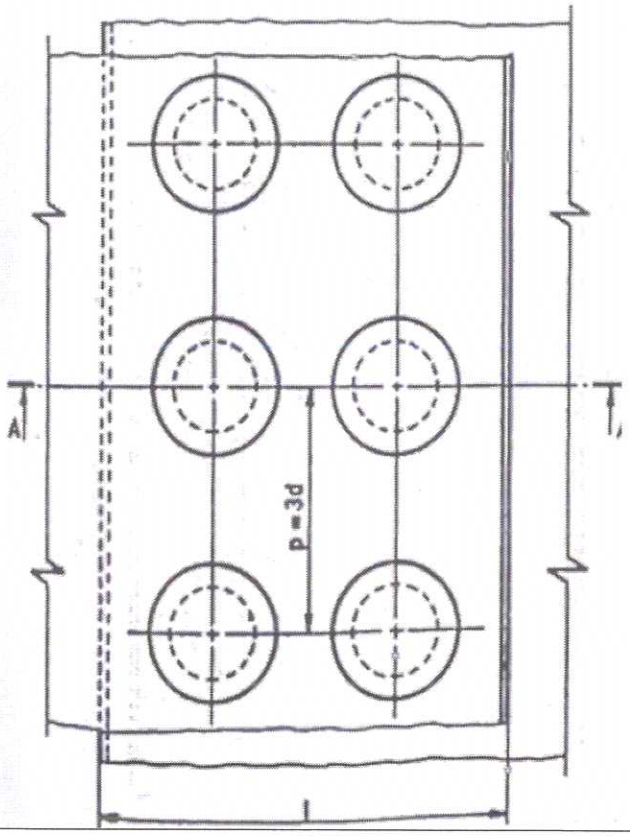
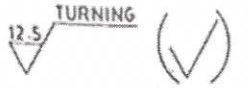
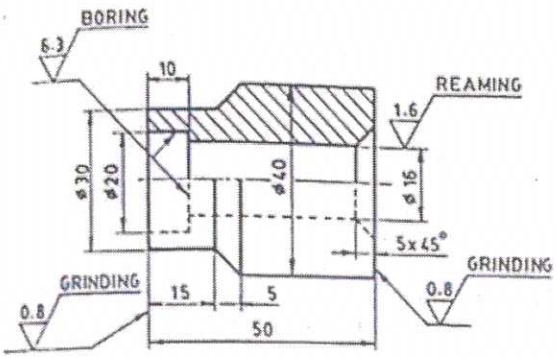
SET-A

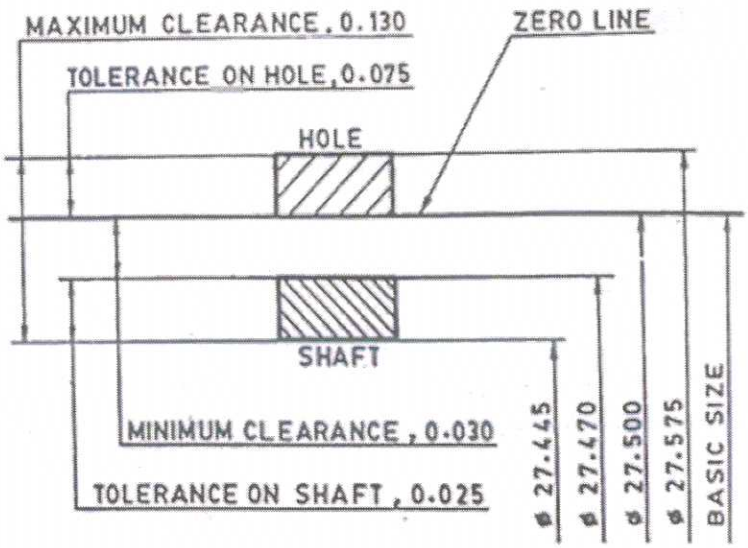
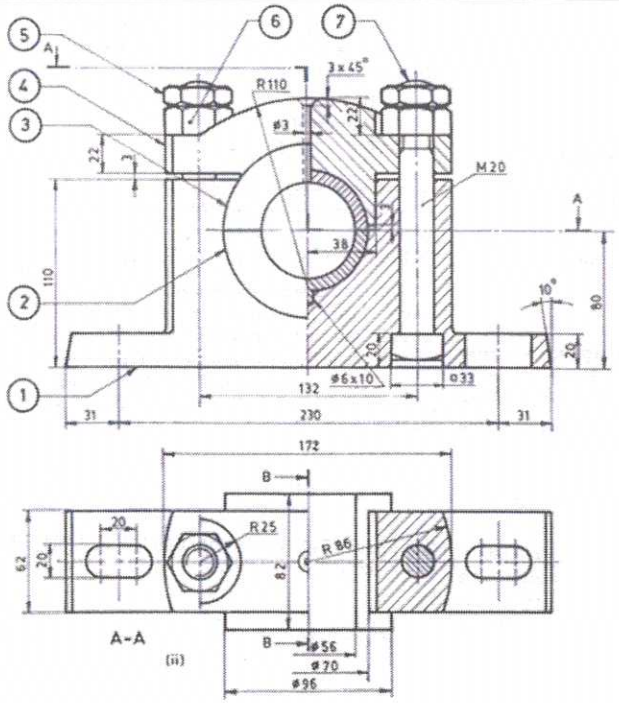
Scoring Indicators

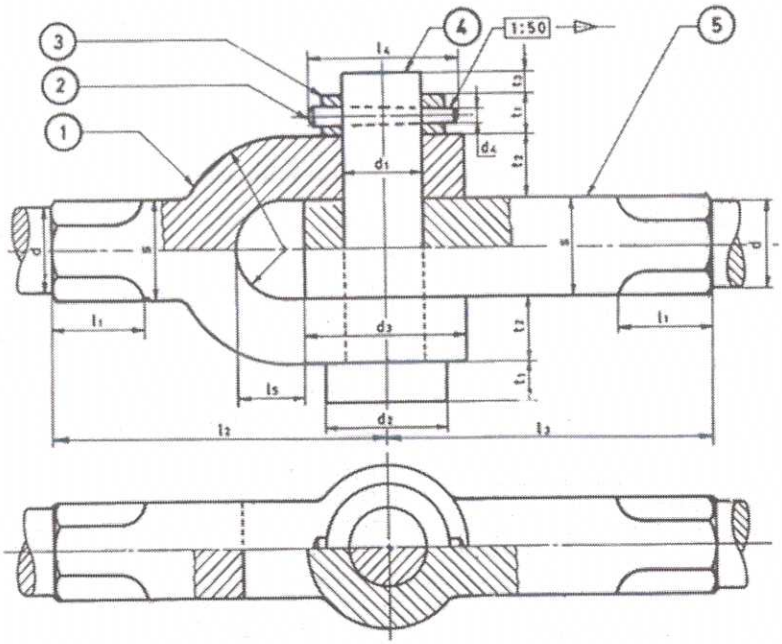
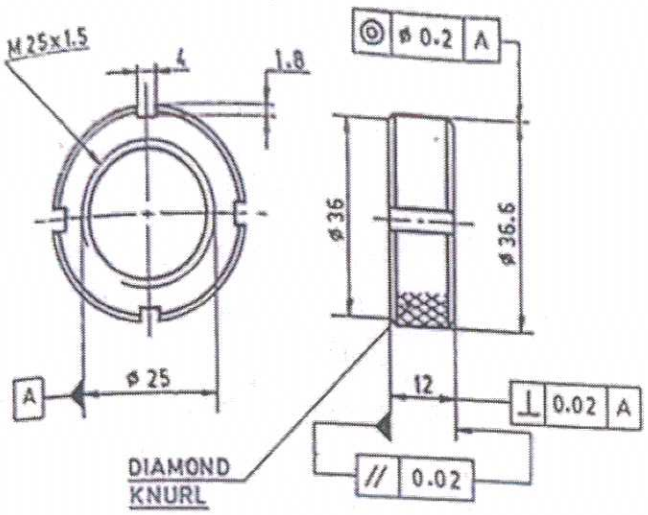
COURSE NAME: MACHINE DRAWING
COURSE CODE: TED (21) - 3025 **QID: 2110220182**

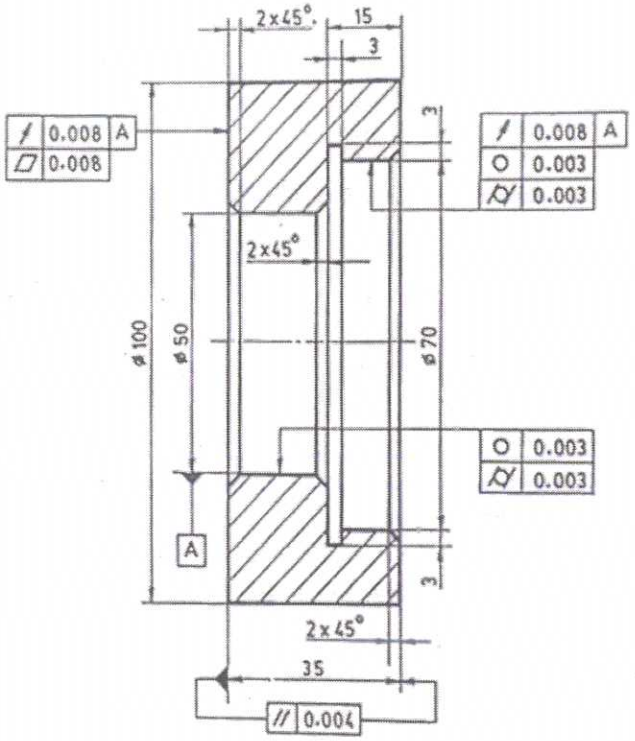
Q No	Scoring Indicators	Split score	Sub Total	Total score
	Module- I			
I.1	 1. Elevation of the assembly with dimension 2. End view from the nut side	(8+2) Marks 5 marks	10 marks 5 marks	15 marks
I.2	By Unwin's Formula, Diameter of the rivet, $d = 6\sqrt{t}$ $= 6\sqrt{10}$ $= 18.9$ mm Select the next higher standard diameter ∴ Diameter of the rivet, $d = 20$ mm Marginal distance, $m = 1.5\,d$ $m = 30$ mm Longitudinal pitch, $p = 3d$ $p = 60$ mm Transverse pitch, $p_t = 2d + 6$ mm $= 46$ mm Length of overlap, $l = 1.5\,d + p_t + 1.5\,d$	3 marks	3 marks	15 marks

	 	7 marks 5 marks	10 marks	
Module- II				
II.1	  1. Figure with dimension	(5+2) marks	7 marks	15 marks

	2. Indication of turning surface roughness 12.5 μm	2 marks		
	3. Indication of Grinding surface roughness 0.8 μm	2 marks	8 marks	
	4. Indication of Reaming surface roughness 1.6 μm	2 marks		
	5. Indication of Boring surface roughness 6.3 μm	2 marks		
II.2	Minimum limit of the hole = ϕ 27.500 mm Maximum limit of the hole = ϕ27.575 mm Tolerance on the hole = (Maximum limit of the hole) – (Minimum limit of the hole) = ϕ27. 575 – ϕ27. 500 = 0. 075 mm	2 marks		
	Maximum limit of the shaft = ϕ27.470 mm Minimum limit of the shaft = ϕ27.445 mm Tolerance on the shaft = (Maximum limit of the shaft) – (Minimum limit of the hole) = ϕ27.470 – ϕ27.445 = 0.025 mm	2 marks		
	Minimum clearance = (Maximum limit of the hole) – (Maximum limit of the shaft) = ϕ27.500 – ϕ27. 470 = 0.030 mm.	2 marks	10 marks	15 marks
	Maximum clearance = (Maximum limit of the hole) – (Minimum limit of the shaft) = ϕ27.575 – ϕ27.445 = 0. 130 mm	2 marks		
	Check Total tolerance = (Tolerance on the hole) + (Tolerance on the shaft) = 0.075 + 0.025 = 0.100mm	2 marks		
	Difference in clearance = (Maximum clearance) – (Minimum clearance) = 0.130 – 0.030 = 0.100 mm ∴ Total tolerance = Difference in clearance.			

		5 marks	5 marks	
	Module- III			
III.1	 1. Right half sectional elevation 2. Dimensioning 3. Top view 4. Bill of Materials/Item List	15 marks 2 marks 10 marks 3 marks	30 marks	30 marks

III.2	 1. Top half sectional elevation 2. Dimensioning 3. Bottom half sectional plan 4. Bill of Materials/Item List	15 marks 2 marks 10 marks 3 marks	30 marks	30 marks
	Module- IV			
IV.1	 1. Part Drawing with dimension 2. Surface Flatness (parallel planes) 0.02mm	(3+3+2) marks 2mark	8 marks	15 marks

	3. Indicating cylindrical zone of diameter 0.2mm coaxial with datum 4. Indicating perpendicular geometrical tolerance 0.02mm	3mark 2mark	7 marks	
IV.2	 1. Part Drawing with dimension 2. Surface 1 radial run-out 0.008 mm symbol 3. Surface Flatness (parallel planes) symbol 4. Surface 1 and 2 parallelisms of 0.004mm symbol 5. Surface 3 geometric circularity symbol 6. Surface 3 cylindricity tolerances 0.003 mm symbol 7. Surface 4 radial run-out 0.008 mm symbol 8. Surface 4 geometric circularity 0.003 mm symbol 9. Surface 4 cylindricity tolerances 0.003 mm symbol	(5+2) marks 1mark 1mark 1mark 1mark 1mark 1mark 1mark 1mark	7 marks 8 marks	15 marks