B.E. I & II First / Second Semester Old (CBS Pattern) 103 - Engineering Graphics

P. Pages : 3 Time : Four Hours			GUG/W/18/1 * 1 1 5 5 * Max. Mark	GUG/W/18/1457 Max. Marks : 80	
	Note	s: 1. 2. 3. 4. 5. 6.	All questions carry equal marks. Answer Q.1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6, Q. 7 or Q. 8, Q. 9 or Q. 10. Due credit will be given to neatness and adequate dimensions. Assume suitable data wherever necessary. Retain the construction lines. Illustrate your answers wherever necessary with the help of neat sketches.		
1.	a)	Two fixed points F ₁ and F ₂ are 100 mm apart. A point 'P' is moving in a plane in such a way that the sum of it's distance from two fixed points is always constant and is equal to 140 mm. Trace the curve generated by point 'P' and name the curve.			
	b)	A straig HP and is 75 m	ght line PQ, has end P is lying in both reference plane. The line is inclined at 35° to is parallel to profile plane. Draw three views of the line, when true length of line m.	8	
2.	a)	A wheel of motor cycle 60 cm in diameter rolls on a straight horizontal road. Draw the locus of a point 'P' on the periphery of the wheel for one revolution of the wheel initially point 'P' is farthest from the road.		8	
	b)	End projectors of line CD is 75 mm apart. End C is in H.P. and 45 mm IFO VP, while it's end D is in VP. The F.V. of the line makes an angle of 50° to xy. Draw the projection of line and determine it's true length and true inclination with HP and VP. Also find β & LHSV.			
3.	a)	A circu inclined	lar plate of 70 mm diameter is resting it's circumferences such that it's plane is 1 at 30° to HP & 45° to VP. Draw the projection.	8	
	b)	An pent inclined corner i	tagonal plate of side 30 mm is resting on a corner of it's base in HP, with the surface 1 at 60° to HP. Draw the projections when T.V. of the diagonal passing through that is inclined at 45° to VP.	8	
			OR		
4.		A penta base VI 25° to V	igonal pyramid of base side 30 mm and axis 70 mm long is resting on a corner of P, with the slant edge passing through that corner is parallel to HP and inclined at /.P. Draw it's three views. When axis inclined 45° to HP.	16	

5. A pentagonal prism of base side 30 mm & axis 75 mm long it resting on an edge of it's base in HP with axis parallel to VP & inclined at 30° to HP. It is cut by section plane perpendicular to VP and inclined at 45° to HP, passing through a point on axis 20 mm away from top base of prism. Draw sectional top view, true shape of section & development of retained part of prism.

OR

- 6. A tetrahedron of 75 mm long edge is resting on the HP on one of it's faces with the edge of that face is perpendicular to VP. It is cut by an inclined section plane so that the true shape of the section plane so that is a trapezium of opposite parallel sides of 20 mm & 40 mm. Draw the front view, sectional top view & true shape of section. Determine the inclination of the section plane with the HP also draw the development of the cut solid.
- 7. Draw the orthographic view.



OR

8. Draw the orthographic view.



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9. Draw the Isometric view of the object, for which F.V. and L.H.S.V. are given as shown fig. 9.



OR

10. Draw the Isometric projection of an object whose F.V. and S.V. are shown in fig. 10.



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