



Reg. No. :

Question Paper Code : 37004

B.E./B.Tech. DEGREE EXAMINATION, JANUARY 2014.

First Semester

Civil Engineering

GE 6152 — ENGINEERING GRAPHICS

(Common to all branches)

(Regulation 2013)

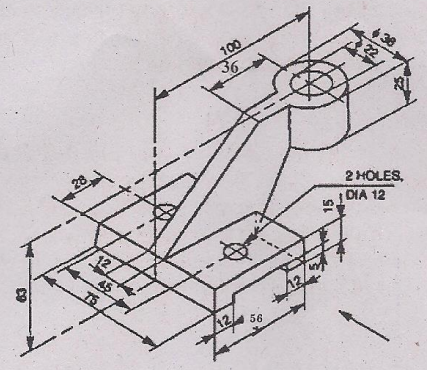
Time : Three hours

Maximum : 100 marks

Answer ALL questions

(5 × 20 = 100)

1. (a) Draw the front view, top view and left side view for a machine component as shown in figure.



Or

- (b) The eccentricity of the curve is $\frac{5}{3}$. The distance from the focus to the vertex of a curve is 30 mm. Draw the curve and also draw tangent and normal for any one point on the circumference of the curve.
2. (a) A straight line AB 50 mm long has its end A 10 mm above HP and end B 50 mm in front of VP. Draw the projection of the line AB if it is inclined at 30° to HP and 45° to VP.

Or

- (b) A circular lamina of 60 mm diameter is resting on VP on one of its circumference point such that the surface is 40° inclined to VP. Draw the projections of a lamina if the diagonal passing through the point on which it is resting is making 50° with HP.

3. (a) A pentagonal prism of 25 mm side and height 65 mm is resting on HP on one of its rectangular faces such that its axis is parallel to HP and 40° inclined to VP. Draw its projections.

Or

- (b) A square pyramid of base side 40 mm and height 60 mm is resting on HP on one of its triangular faces such that the axis is inclined to HP and parallel to VP. Draw its projection using auxiliary plane method.
4. (a) A cone of base diameter 60 mm and height 70 mm is resting on HP on its base. A section plane cuts the cone in such a way that it is perpendicular to HP and 30° inclined to VP. Also the section plane is passing through the cone at a distance of 10 mm in front of the axis. Draw its sectional front view and true shape of the section.

Or

- (b) A hexagonal pyramid of base side 30 mm and height 60 mm rests vertically on its base on the ground with two of its base sides parallel to VP. It is cut by a sectional plane inclined at 30° to HP and perpendicular to VP and meeting the axis at the midpoint. Draw the development of the lateral surfaces of a truncated pyramid.
5. (a) A cylinder of diameter 60 mm and height 60 mm when it is resting on one of its ends on the HP. It is cut by a sectional plane perpendicular to VP and inclined at 45° to the HP. The plane passes through the point on the axis which is located at 15 mm from the top of the cylinder. Draw the isometric view of a truncated cylinder.

Or

- (b) A hexagonal prism of base side 20 mm and height 50 mm rests on the ground plane on one of its rectangular faces with its axis inclined at 30° to the picture plane. One corner of a prism is touching the picture plane. The station point is 60 mm in front of the PP and lies in a central plane that bisects the axis. The station point is 40 mm above the ground plane. Draw the perspective of a prism using vanishing point method.