B.E/B.TECH, M.E/M.TECH, MBA, MCA, POLYTECHNIC & SCHOOLS

Notes   *Available @*
Syllabus
Question Papers   www.binils.com
Results and Many more…

Reg. No. :

Question Paper Code : 20696

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

First Semester

Civil Engineering

GE 8152 – ENGINEERING GRAPHICS

(Common to All Branches)

(Regulations 2017)

Time : Three hours   Maximum : 100 marks
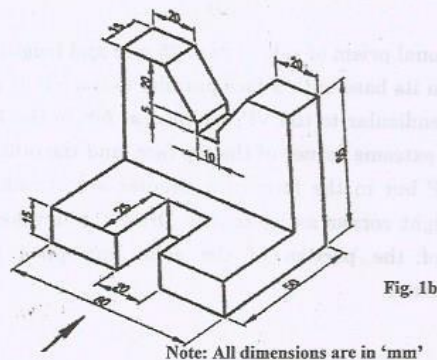
Note : Blank answer Booklet consisting of A3 drawing sheets is to be supplied to the students

(5 × 20 = 100 marks)

1.   (a)   Trace the conic section when the distance of the focus from the directrix is 50 mm and eccentricity is equal to 2/3. Name the curve and also draw normal and tangent to the curve at a point 35 mm from the directrix.

Or

      (b)   For the object shown in Fig. 1b, draw free hand sketching of
             (i) front view (ii) top view and (iii) right hand side view

Fig. 1b

Note: All dimensions are in 'mm'

B.E/B.TECH, M.E/M.TECH, MBA, MCA, POLYTECHNIC & SCHOOLS

Notes
Syllabus
Question Papers
Results and Many more…

Available @

www.binils.com

2. (a) The top view of a line is 75 mm long and inclined to XY at 45°. One end is 20 mm above HP and 10 mm in front of VP. The other end is 65 mm above HP and is in front of VP. What is the true length of the line and its inclination with HP and VP? Locate the traces and their projections.

Or

(b) A circular lamina of 60 mm diameter rests on HP such that the surface of the lamina is inclined at 35° to HP. The diameter through the point on which the lamina rests on HP, appears to be inclined at 35° to the VP in the top view. Obtain its projection.

3. (a) A hexagonal prism of 35 mm base edges and axis 75 mm long rests on one of its corners of base on HP. Draw its projections, when the lateral edge through that corner on HP is inclined at 30° to HP, and the vertical plane containing that lateral edge and the axis is parallel to VP.

Or

(b) A pentagonal pyramid of base edges 35 mm and axis 75 mm long has a corner of base on HP. Draw its projections when the slant edge through corner lies on HP and is parallel to VP.

4. (a) A right circular cone of base diameter 60 mm and vertical height 70 mm placed with its axis parallel to the VP and perpendicular to the HP is sectioned by a plane perpendicular to the VP and parallel to the contour generator and at a distance of 12 mm from it. Draw the sectional top view and the true shape of the section.

Or

(b) A pentagonal prism of side of base 25 mm and height 65 mm is resting on the HP on its base with a face parallel to the VP. It is cut by two planes: one perpendicular to the VP, inclined at 50° to the HP, passing through the right extreme corner of the top face, and the other also perpendicular to the VP but in the form of a circular arc of radius 25 mm with the bottom right corner as its centre. Draw the development of the lateral surface of the portion of the solid entrapped between these two cutting planes.

2   20696

5. (a) A hexagonal prism of base side 30 mm and axis 80 mm has a square hole of sides 20 mm at the centre. The axes of the square hole and hexagonal prism coincide, and one of the faces of the square hole is parallel to a face of the hexagon. Draw the isometric projection of the prism with hole.

Or

(b) A hexagonal pyramid of base side 30 mm and axis 65 mm rests on the GP with an edge of the base parallel and 10 mm behind the PP. The station point is 40 mm above the ground and 70 mm in front of the PP and 50 mm towards the right of the axis of the pyramid. Draw its perspective projection.

————————