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**Question Paper Code: 41707**

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2019

First Semester

Civil Engineering

14UME107 – ENGINEERING GRAPHICS

(Common to ALL branches)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) One end P of a line PQ, 60 mm long is 40 mm in front of the VP and 25 mm above the HP. The line is inclined at an angle of 40° to the HP and at an angle of 35° to VP. Draw the projections of PQ. CO1- App (20)

Or

- (b) A square lamina PQRS of side 50 mm rests on the ground on its corner P in such a way that the diagonal PR is inclined at an angle of 50° to the HP and apparently inclined at an angle of 30° to the VP. Draw its Projections. CO1- App (20)

2. (a) A cone of diameter 40 mm and axis 70 mm resting on HP one of its generators with the axis is parallel to VP. Draw the projections. CO2- App (20)

Or

- (b) A hexagonal prism of side of base 25 mm and axis 50 mm long is freely suspended from a corner of one end. Draw its projections by change of position method. CO2- App (20)

3. (a) A hexagonal prism of base side 30 mm and axis length 60 mm rests on one of its ends on the HP with two base sides parallel to VP. It is cut by a plane perpendicular to the VP and inclined at angle of 40° to the HP. The cutting plane meets the axis at 30mm from the top. Draw the front view, sectional top view and the true shape of the section. CO3- App (20)

Or

(b) A circular hole of diameter 30mm is drilled through a vertical cylinder of diameter 50mm and height 65mm. The axis of the hole is perpendicular to the VP and meets the axis of the cylinder at right angles at a height of 30mm above the base. Draw the development of the lateral surface of the cylinder. CO3- App (20)

4. (a) A cylinder of 60 mm diameter and 70 mm height stands on HP. A section plane perpendicular to VP and inclined at an angle of  $45^\circ$  to HP bisects the axis. Draw the isometric projection of the truncated cylinder. CO4- App (20)

Or

(b) A square prism of base 20 mm side and height 50 mm rests on one of its ends on the HP. All the base sides of the prism are equally inclined to the VP. It is cut by a plane perpendicular to the VP and inclined at an angle of  $45^\circ$  to the HP that passes through a point on the axis 10 mm from the top. Draw the isometric projection of the solid. CO4- App (20)

5. (a) Draw the plan, elevation and left side view of the following object. CO5- App (20)

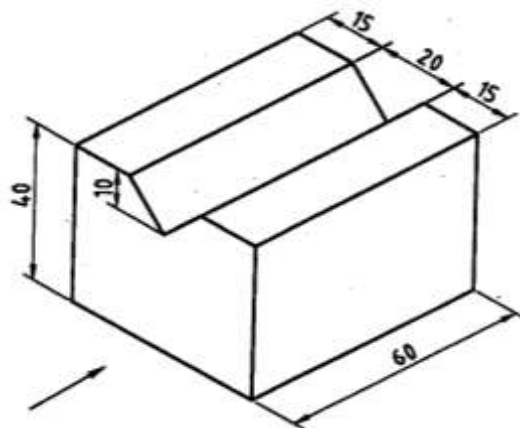


Fig 1

Or

- (b) Draw the front, right side and top view of the given isometric CO5- App (20) drawing shown in figure below. All dimensions are in mm.

