Reg. No. : | | | | | | | | | | |

Question Paper Code: 31017

B.E./B.Tech. DEGREE EXAMINATION, NOV 2016

First Semester

Civil Engineering

01UME107 – ENGINEERING GRAPHICS

(Common to ALL branches)

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

(5 x 20 = 100 Marks)

(a) Sketch by free hand, the following views of the object shown in Figure 1.

(i) The front view in the direction of the arrow.

(ii) The top view and

(iii) The available side view.

The dimensioning is also to be done by free hand . (20)

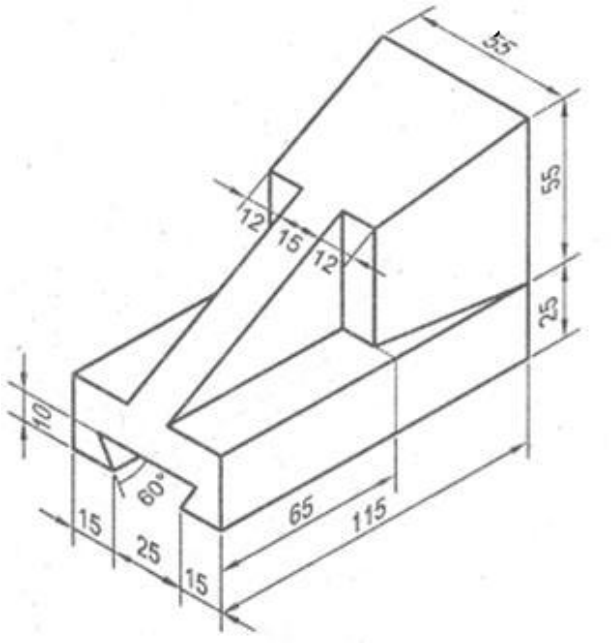
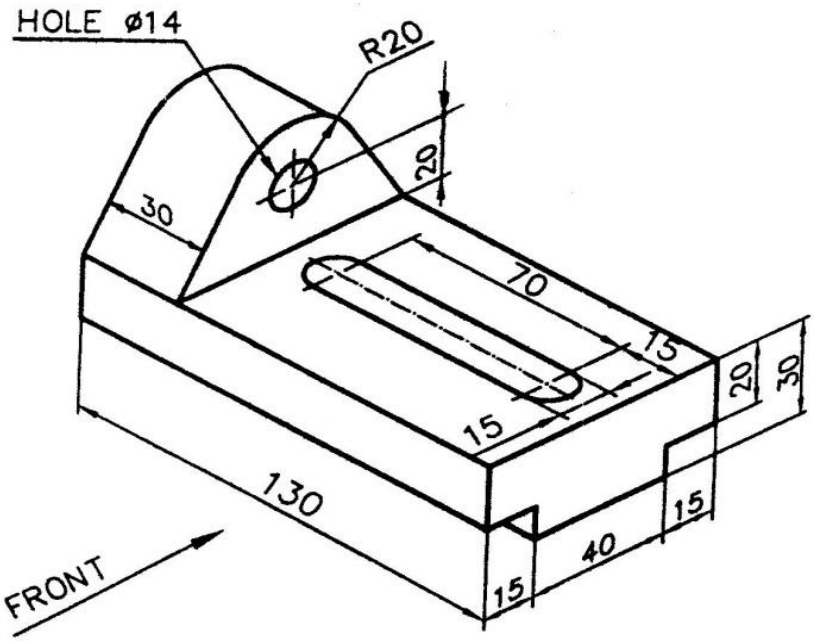


Figure 1

All dimensions are in '*mm*'

Or

(b) Draw the plan, elevation and left side view of the following object. (20)



All dimensions are in '*mm*'.

2. (a) A line AB measuring 85 mm has its end 'A' is 25 mm above the HP and 20 mm in front of the VP. The front view and top view measure 70 mm and 55 mm respectively. Draw the projections of the line and determine its true inclinations. (20)

Or

(b) A 60^0 set square has its shortest edge length 40 mm kept perpendicular to the VP so that the projection of the set-square on the HP is an isosceles triangle. Draw the projections and find the inclination of the set-square with the HP. (20)

3. (a) A right circular cone of diameter 60 mm and height 70 mm is resting on the ground on one of the point on the circumference of its base with the axis parallel to the VP. Draw the projections of the cone if the end generator is perpendicular to HP. (20)

Or

(b) A cylinder of base diameter 50 mm and axis length 70 mm is resting on HP on a point on the circumference of the base with its axis inclined at 50º to HP and parallel to VP. Draw its projections. (20)

4. (a) A pentagonal pyramid of base side 26 mm and altitude 52 mm is resting on H.P on its base with one of its base sides is perpendicular to V.P. It is cut by a plane inclined at 45^0 to H.P and perpendicular to V.P and is bisecting the axis. Draw the front view, sectional top view and true shape of the section. (20)

Or

(b) A hexagonal pyramid of base side 25 mm and height 60 mm rests on the HP on its base with two of its base edges are perpendicular to the VP. It is cut by a plane perpendicular to the VP and inclined at 45° to the HP at a distance of 20 mm from the vertex on the axis. Draw the development of the lateral surfaces of the pyramid. (20)

5. (a) A hexagonal prism of base side 25 mm and height 50 mm rests on the HP and one of the edges of its base is parallel to VP. A section plane perpendicular to VP and inclined at 50^0 to HP bisects the axis of the prism. Draw the isometric projection of the truncated prism, showing the cut surface. (20)

Or

(b) A dust bin is in the form of a hollow hexagonal pyramid with the base dimensions of 20 mm side and the top open surface of 45 mm sides. Draw the isometric view of the hollow dust bin, if its height is 50 mm and the wall thickness is negligible. (20)

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