



B.E/B.TECH DEGREE EXAMINATIONS: JUNE 2015

(Regulations 2009)

First Semester

MEC101: ENGINEERING GRAPHICS

(Common to all branches)

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

(5 x 20 = 100 Marks)

- 1 a) A line AB, 85 mm long has its end A, 25 mm above the HP and 20 mm in front of the VP. The top and front views of the line have lengths of 55mm and 70 mm respectively. Draw the projections of the line and find its true inclinations with the VP and HP

(OR)

- b) A line measuring 75 mm long has one of its ends 50 mm in front of V.P. and 15 mm above H.P. The top view of the line is 50 mm long. Draw and measure the front view. The other end is 15 mm in front of V.P. and is above H.P.

- 2 a) A circular plate of diameter 50 mm is resting on HP on a point on the circumference with its surface inclined at 45° to HP and perpendicular to VP. Draw its projection.

(OR)

- b) A triangular prism, side of base 40mm and axis 55mm long is resting on one of its side edges on ground with its axis parallel to both the reference planes. Draw the plan and elevation of the triangular prism.

- 3 a) A pentagonal pyramid, side of base 30 mm and axis 60 mm long, rests with its base on H.P. and an edge of its base is parallel to V.P. A section plane perpendicular to V.P. and inclined at 45° to H.P. passes through the axis at a point 35 mm above the base. Draw the sectional top view.

(OR)

- b) A hexagonal pyramid of side 30mm and altitude 60mm is resting on HP on its base with two of its base sides perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is bisecting the axis. Draw the development of the remaining portion of the pyramid

- 4 a) A pentagonal pyramid base 30 mm and axis 65 mm long rests with its base on HP. An edge of the base is parallel to VP and nearer to it. A horizontal section plane cuts the pyramid and passes through a point on the axis at a distance of 25 mm from the apex. Draw the isometric projection of the frustum of the pyramid

(OR)

- b) A rectangular prism, side of base 50 mm \times 30 mm and height 55 mm, rests with its base on the ground plane. A vertical edge is in the picture plane and one of the longer edges of its base is inclined at 45° to PP and behind it. The station point is 50 mm in front of PP, 75 mm above the ground plane and lies in a central plane which passes through the centre of the prism. Draw the perspective view.

5. a) Sketch the orthographic views from the given pictorial view as shown in Fig.1 by free hand.

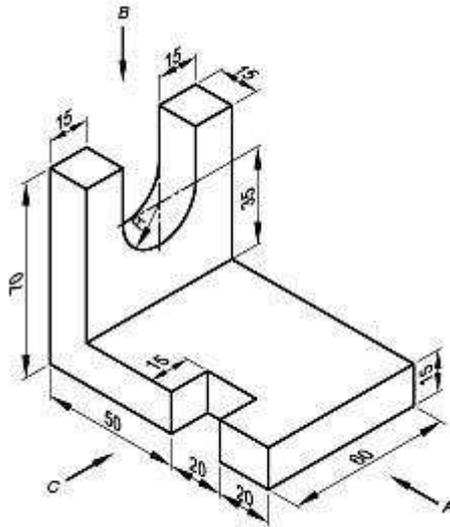


Figure.1

(OR)

- b) Sketch the pictorial view from the given orthographic views as shown in Fig.2 by free hand.

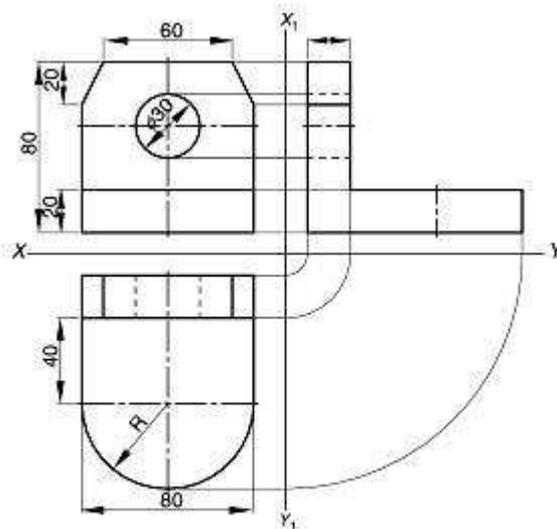


Figure.2
