

B.E./B.TECH. DEGREE EXAMINATIONS: JUNE 2010

First Semester

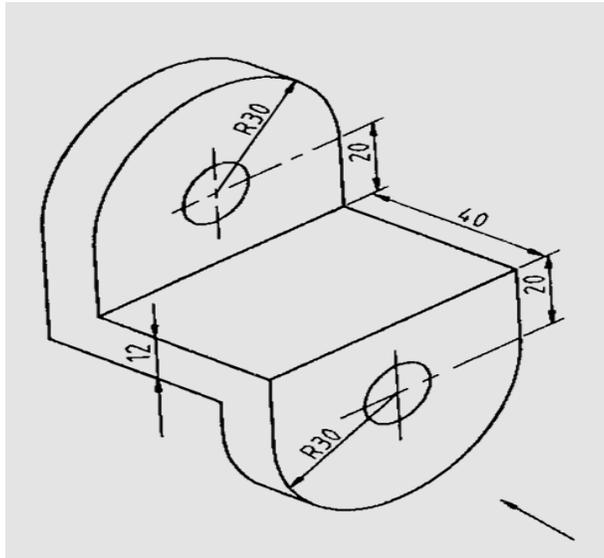
MEC101: ENGINEERING GRAPHICS

(Common to B.E. Civil Engineering, Electrical and Electronics Engineering,
Electronics and Instrumentation Engineering, Electronics and Communication Engineering &
B.Tech. Textile Technology (Fashion Technology), Biotechnology Branches)

Time: Three hours**Maximum Marks: 100****Answer ALL the Questions:-****PART A (5 x 20 = 100 Marks)**

1. (a) Construct a parabola when the distance between the focus and directrix is 30 mm.
(OR)
(b) A line AB 70 mm long, has its end A 35 mm above HP and 30 mm in front of VP. The top view and front view has a length of 45 mm and 60 mm respectively. Draw its projections.
2. (a) A hexagonal plate of side 30 mm is placed with one side on VP and its surface is inclined at 45° to VP and perpendicular to HP. Draw its projections.
(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 50° to HP and parallel to VP. Draw its projections.
3. (a) A cone of base diameter 60 mm and axis length 70 mm is resting on HP on its base. It is cut by a plane perpendicular to VP and parallel to one of the end generators and is 10 mm away from it. Draw the front view, sectional top view and true shape of section.
(OR)
(b) A square pyramid of base side 30 mm and altitude 65 mm is resting on HP on its base with a side of base inclined at 25° to VP. It is cut by a plane inclined at 35° to HP and perpendicular to VP and bisects the axis. Draw the development of the lower portion of the pyramid.
4. (a) A pentagonal pyramid, base side 25 mm and altitude 65 mm stands 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 25 mm from the apex. Draw the isometric view of the frustum of the pyramid.
(OR)
(b) A hexagonal pyramid of base side 25 mm and altitude 50 mm stands with its base on the ground with a side of base is parallel to and 20 mm behind the picture plane. The station point is 60 mm above HP and 80 mm in front of picture plane and lies in the central plane which is 50 mm to the left of the axis of the pyramid. Draw the perspective view of the pyramid.

5. (a) Draw (by a free hand) the plan, elevation and left side view of the object shown in the following figure.



(OR)

- (b) Draw (by a free hand) the pictorial view of the object whose orthographic projections are shown in the following figure.

