

Summer Semester Examination, May 2018

Semester: II  
Marks: 60  
Time: 4 Hrs.

1. Each question carries 12 marks.
2. Attempt **any five** questions out of the following six questions.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

Technical drawing of a rectangular plate with three holes. The front view shows a 50x25 plate with a central hole of diameter 16 and two side holes of diameter 10. The side view shows the plate's thickness of 10. Dimensions are given in millimeters.

**b) Inscribe a regular dodecagon (polygon having 12 sides) in a circle of diameter 70 mm.**



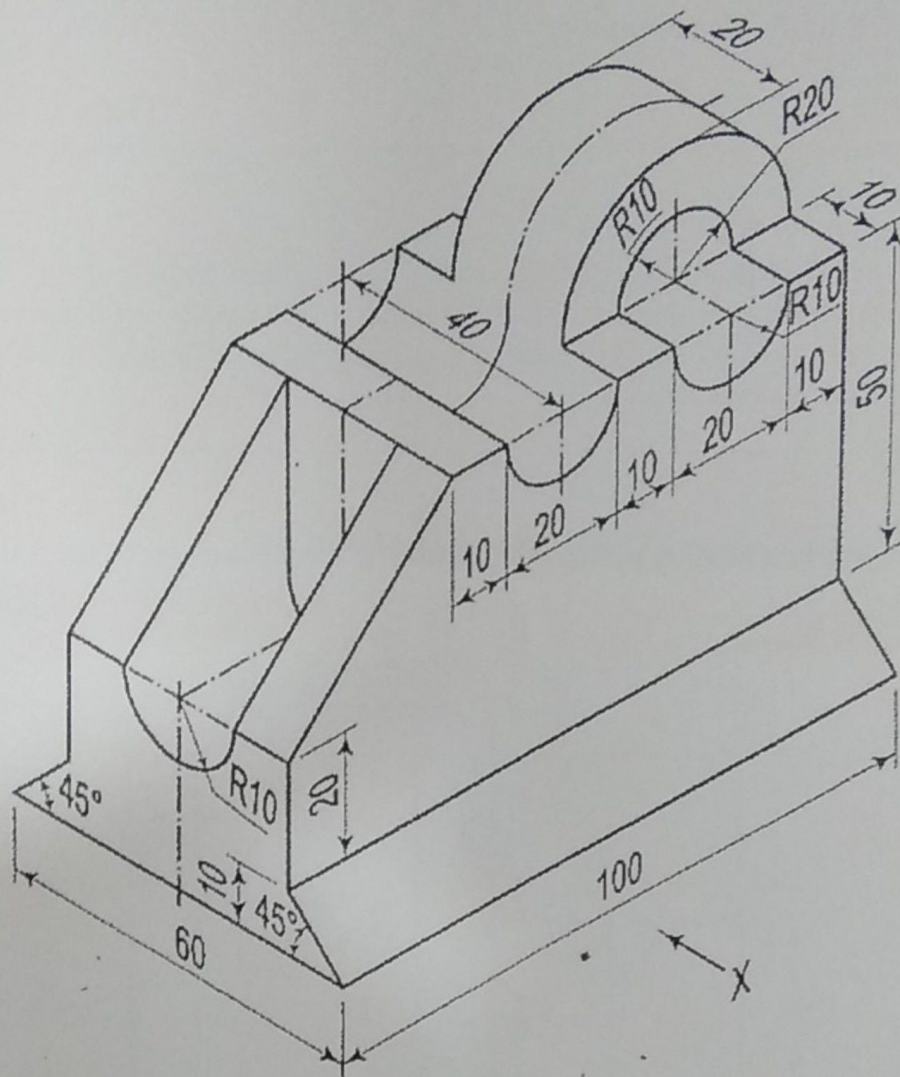
**Q.2** Draw the following views of the object (in X – direction) shown below, by using first angle projection method.

a) Front View

(6)

b) Top View

(6)



**Q.3.** Draw the projections of a circle of 60 mm diameter resting in the H. P. on a point A on the circumference, its plane inclined at  $45^\circ$  to the H. P. and the diameter AB making an angle of  $30^\circ$  with the V. P. (12)

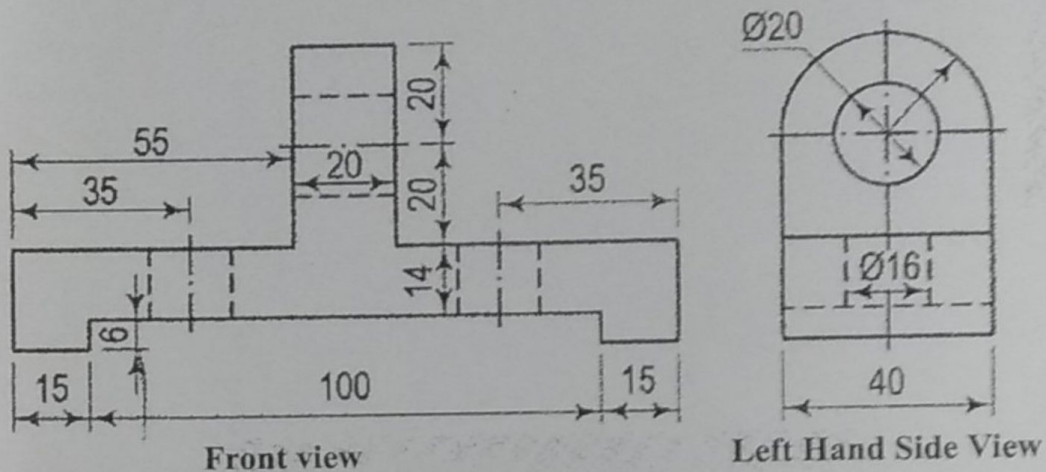
**Q.4** A pentagonal prism is resting on one of the corners of its base on the H.P. The longer edge containing that corner is inclined at  $45^\circ$  to the H.P. The top view of the axis of the prism makes an angle of  $30^\circ$  with the V.P. Draw the projections of this solid having side of base as 45 mm and height of 70 mm. (12)



- Q.5. A hexagonal pyramid, base 30 mm side and axis 65 mm long, is resting on its base on the H.P. with two edges parallel to the V.P. It is cut by a section plane, perpendicular to the V.P. inclined at  $45^\circ$  to the H.P. and intersecting the axis at a point 25 mm above the base. Draw the front view, sectional top view, sectional side view and true shape of the section. (12)

OR

- Q.5 Draw the isometric view of the following casting. (12)



- Q.6. Draw the development of the frustum of a pentagonal pyramid, which is resting on H.P. The pyramid is cut by an AIP (auxiliary inclined plane) inclined at  $60^\circ$  to the H.P. and intersecting the axis of the pyramid at distance of 30 mm from apex. The pentagonal pyramid is having base of 30 mm side and height of 60 mm. (12)