Code No: 09A10491 R09

B. Tech I Year Examinations, May/June -2012
ENGINEERING DRAWING
(Common to Electronics & Communication Engineering, Aeronautical Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks

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1. a) Construct a diagonal scale of R.F = 1/3000 to show meters, decimeters and centimeters and long enough to measure upto 300 m. Mark on it a distance of 246 meters.
   b) Construct an ellipse. When the distance of the focus from the directrix is equal to 60 mm and eccentricity 2/3. Also draw a normal and a tangent to the curve at a point 35 mm from the focus. [8+7]

2. The ends of a line AB are on the same projector. The end A is 15 mm above the H.P. and 50 mm infront of the V.P. The end B is 40 mm above the H.P. and 10 mm infront of the V.P. Determine the true length and traces of line AB and its inclinations with the two planes. [15]

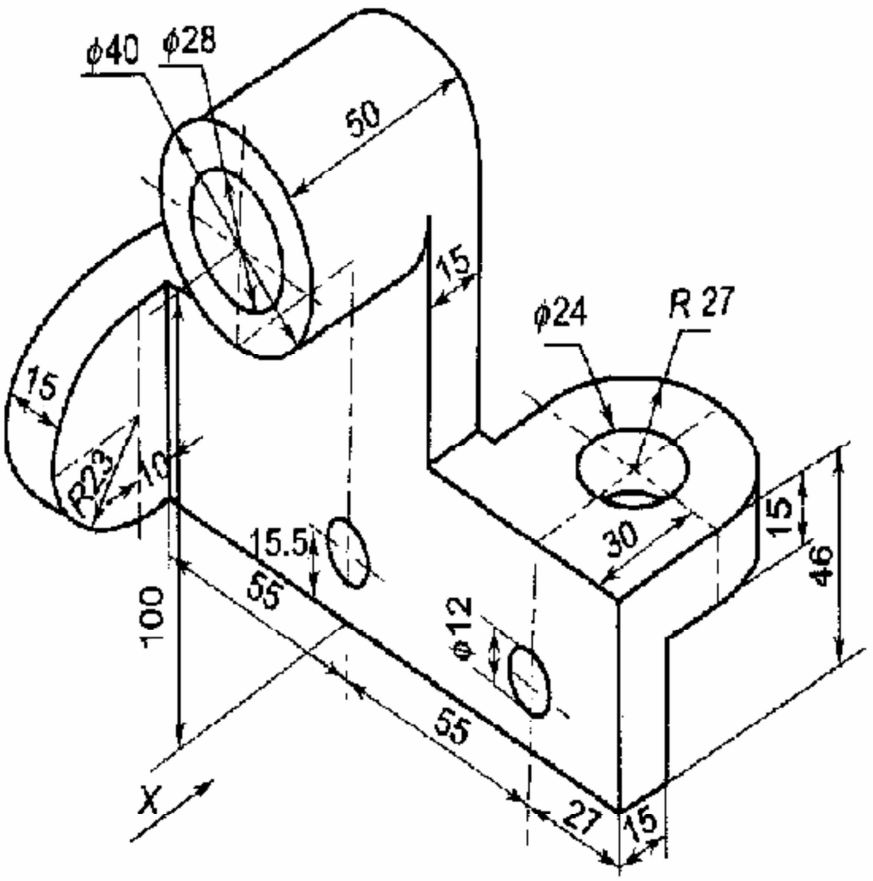
3. A hexagonal pyramid, base 25 mm side and axis 60 mm long, has one of its slant edges on the ground. The plane containing that edge and the axis is perpendicular to the H.P. and inclined at 30° to the V.P. Draw the projections when the base is nearer the V.P. than the apex. [15]

4. A cone, base 50 mm diameter and axis 80 mm long is resting on its base on the H.P. It is cut by a section plane perpendicular to the V.P, inclined at 30° to the H.P and cutting the midpoint of its axis. Draw its front view, Sectional top view and true shape of the section. [15]

5. A vertical cylinder of 70 mm diameter is completely penetrated by another cylinder of 50 mm diameter, their axes bisecting each other at right angles. Draw their projections showing the curves of penetration, assuming the axis of the penetrating cylinder to be parallel to the V.P. [15]

6. Draw the isometric projection of a pentagonal prism with side of base 25 mm and axis 70 mm long. The pyramid is resting on its base on H.P. with an edge of the base perpendicular to V.P. [15]

7. Draw the orthographic front view, top view and side view of the object whose isometric view is shown in figure below. (All dimensions are in mm) [15]



8. A rectangular pyramid, base 40 mm x 25 mm and axis 60 mm long, is placed on the ground plane on its base, with the longer edge of the base parallel to and 30 mm behind the picture plane. The central plane is 35 mm to the right of the apex and the station point is 50 mm infront of the picture plane and 20 mm above the ground plane. Draw the perspective view of the pyramid. [15]

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