No. of Printed Pages : **3 + Drawing Sheet**

BAS-005

B.TECH. (AEROSPACE ENGINEERING) (BTAE)

00035

Term-End Examination

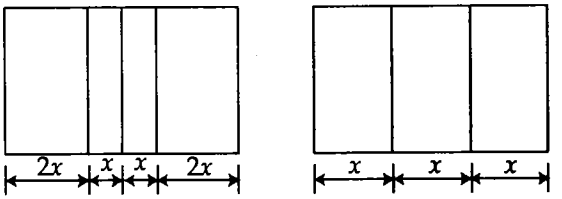
June, 2012

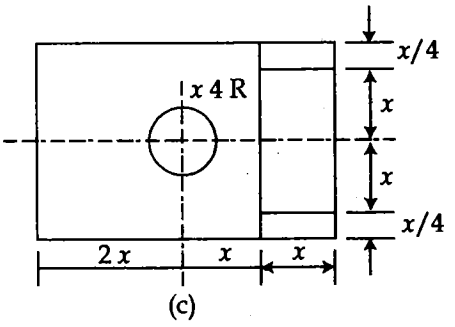
BAS-005 : ENGINEERING DRAWING

Time : 3 hours *Maximum Marks : 70*

Note : *Answer **any five** questions. All dimensions in mm.*

1. Figs (a), (b) and (c) show the top views, Draw possible elevations (at least two) for (a) and (b) and possible elevation and side view (one each) for (c). **4+4**





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2. Fig. 1 shows the isometric view of an object.

Draw (a) Front view 5

(b) Side view and 4

(c) Plan. 5

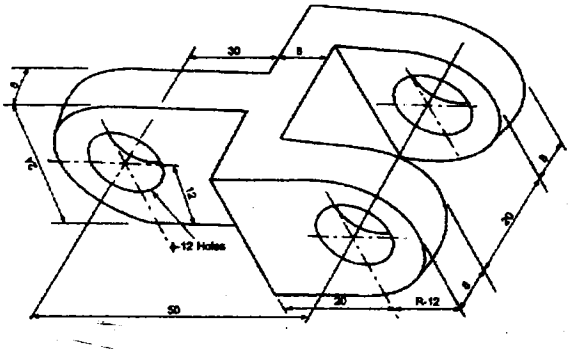

Fig. 1

3. Fig.2 shows front view, LHS side view and plan of an object. Draw isometric view. 14

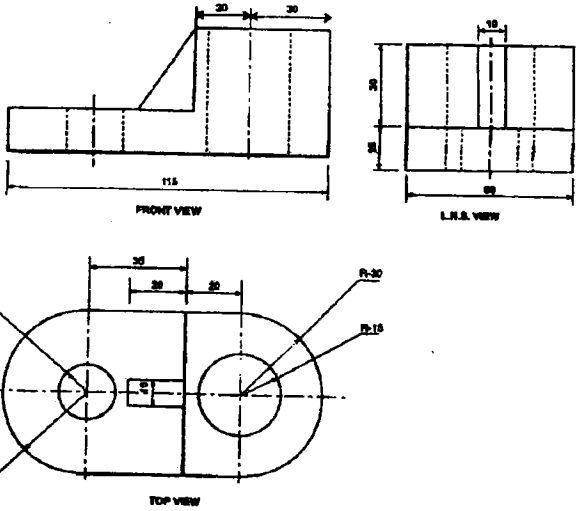

Fig. 2

4. (a) Draw square, Acme and buttress threads showing major diameter, core diameter and pitch. Use major dia = 65, core dia = 55 and pitch = 10. 7

(b) Show how would you draw the elevation of a hexagonal nut ? 7

5. (a) Define a parabolic curve in x-y plane. 2

(b) A directrix along x-axis is so chosen that focus is at 40mm from it. Draw the parabola choosing six lines parallel to directrix. Locate the vertex. Choose a point on the second line from focus where it intersects with the parabola and draw a tangent to parabola. 12

6. An ellipse has major axis of 60 mm and minor axis af 45 mm. Draw the ellipse using concentric circles method. Use at least 12 divisions of angle at the centre of the concentric circles. 14

7. (a) By cutting conic sections show how such curves as circle, ellipse, parabola and hyperbola are produced. 4

(b) A circle of diameter 20 mm rolls on the outside of the circle of diameter 40 mm. The initial contact is at A. Trace the path of A when it again touches the bigger circle. Use six positions of the outer circle. What curve is followed by point A ? 10