R13

B.Tech II Year II Semester (R13) Supplementary Examinations May/June 2017
ENGINEERING GRAPHICS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

(Answer all five units, 5 X 14 = 70 Marks)
All questions carry equal marks
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UNIT – I

1   Draw a parabola if the distance of the focus from the directrix is 60 mm. Also draw a tangent and normal to the curve.

OR

2   A wheel of diameter 60 cm rolls on a straight horizontal road. Draw the locus of a point P on the periphery of the wheel, for one revolution of the wheel, if P is initially on the road.

UNIT – II

3   Draw the projection of points, the position of as per data given below:
       (i) A point 'P' 25 mm above H.P and 20 mm behind V.P.
       (ii) A point 'Q' 20 mm below H.P and 25 mm behind V.P.
       (iii) A point 'R' 25 mm below H.P and 20mm in front of V.P.
       (iv) A point 'S' 20 mm above H.P and 25 mm in front of V.P.
       (v) A point 'T' on H.P and 25 mm in front of V.P.
       (vi) A point 'U' on H.P and 25 mm behind V.P.
       (vii) A point 'X' on H.P as well as V.P both.

OR

4   A line AB, 90 mm long, is inclined at 30° to the HP. Its end A is 12 mm above the HP and 20 mm in front of the VP. Its FV measures 65 mm. Draw the TV of AB and determine its inclination with the VP.

UNIT – III

5   A regular pentagon of 30 mm sides is resting on HP on one of its sides with its surface 45° inclined to HP. Draw its projections when the side in HP makes 30° angle with VP.

OR

6   A cube of 30 mm sides is held on one of its corners on HP such that the bottom square face containing that corner is inclined at 30° to HP. Two of its adjacent base edges containing the corner on which it rests are equally inclined to VP. Draw the top and front views of the cube.

UNIT – IV

7   A square pyramid of base side 30 mm and axis length 60 mm is resting on HP on its base with one side of base inclined at 30° to VP. It s cut by a plane inclined at 45° to HP and perpendicular to VP and passes through the axis at a distance 25 mm from the apex. Draw its front view, sectional top view and true shape of the section.

OR

8   A pentagonal prism of base side 30 mm and axis length 60 mm rests with its base on HP and an edge of the base inclined at 40° to VP. It is cut by a plane perpendicular to VP, inclined at 40° to HP and passing through a point on the axis, at a distance of 30 mm from the base. Develop the remaining surfaces of the truncated prism.
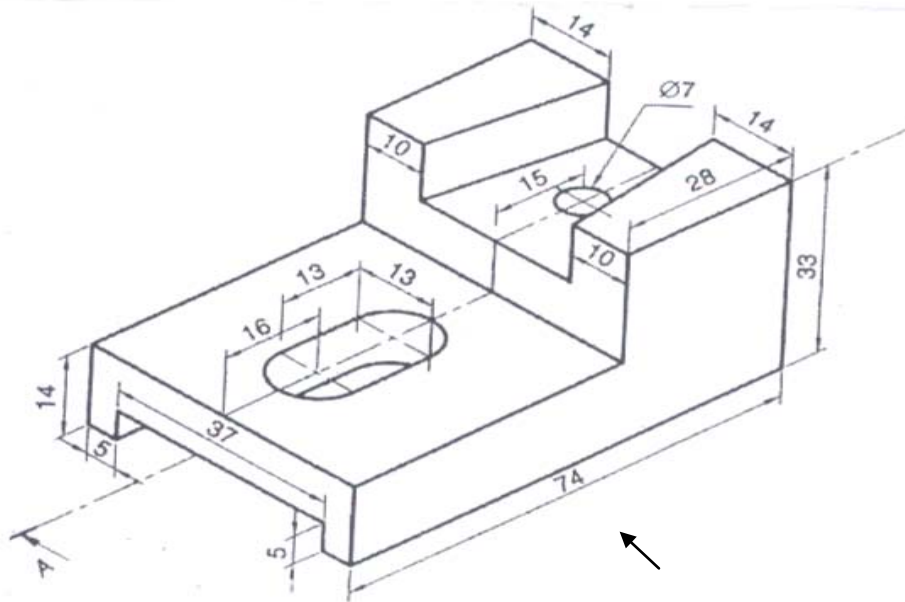
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UNIT – V

9 Draw the isometric view of the object using the orthographic views given below.
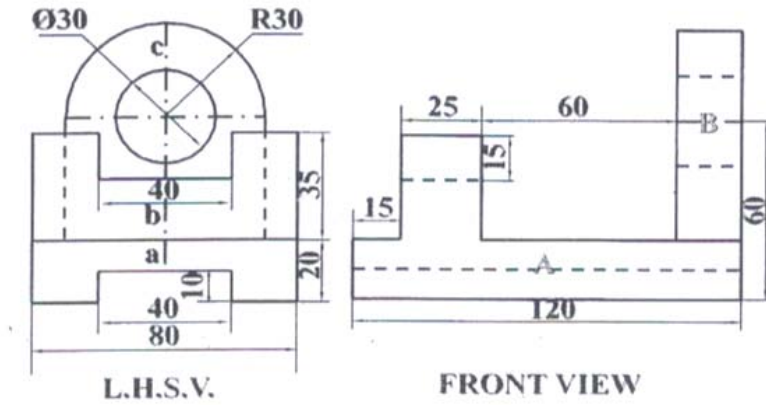
L.H.S.V. FRONT VIEW

OR

10 For the object shown in figure below, draw:
(a) Front View (in direction X).
(b) Top View and LHSV.

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