R15

Code: 15A03101a

B.Tech I Year II Semester (R15) Supplementary Examinations December 2016

ENGINEERING DRAWING

(Common to ECE and EIE)

Time: 3 hours Max. Marks: 70

(Answer all five units, 05 X 14 = 70 Marks)

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UNIT – I

1 Construct a conic when the distance of its focus from its directrix is equal to 50 mm and eccentricity is 2/3. Name the curve, mark its major axis and minor axis. Draw a tangent at any point, P on the curve.

OR

2 A circle of 50 mm diameter rolls on a straight line without slipping. Trace the locus of a point 'P' on the circumference of the circle rolling for one revolution. Name the curve. Draw normal and tangent to the curve at any point on the curve.

UNIT – II

3 Construct a diagonal scale 1/50, showing meters, decimeters and centimeters, to measure up to 5 meters. Mark a length 4.75 meters on it.

OR

4 Draw the orthographic projections of the following points.

(i) Point P is 30 mm above H.P and 40 mm in front of VP
(ii) Point Q is 25 mm above H.P and 35 mm behind VP
(iii) Point R is 32 mm below H.P and 45 mm behind VP
(iv) Point S is 35 mm below H.P and 42 mm in front of VP
(v) Point T is in H.P and 30 mm is behind VP
(vi) Point U is in VP and 40 mm below HP
(vii) Point V is in VP and 35 mm above H.P
(viii) Point W is in H.P and 48 mm in front of VP.

UNIT – III

5 A line NS, 80 mm long has its end N, 10 mm above the HP and 15 mm infront of the VP. The other end S is 65 mm above the HP and 50 mm infront of the VP. Draw the projections of the line and find its true inclinations with the HP and VP.

OR

6 A hexagonal plate of side 20 mm rests on the HP on one of its sides inclined at 45° to the VP. The surface of the plate makes an angle of 30° with the HP. Draw the front and top views of the plate.

UNIT – IV

7 A hexagonal pyramid of base side 30 mm and altitude 75 mm rests on the HP on one of its base edges such that the triangular face containing the resting edges is perpendicular to both the HP and the VP. Draw its projections.

OR

8 Draw the development of a surface pyramid of base side 40 mm and altitude 60 mm when it is resting on the HP on its base with two base edges parallel to VP.

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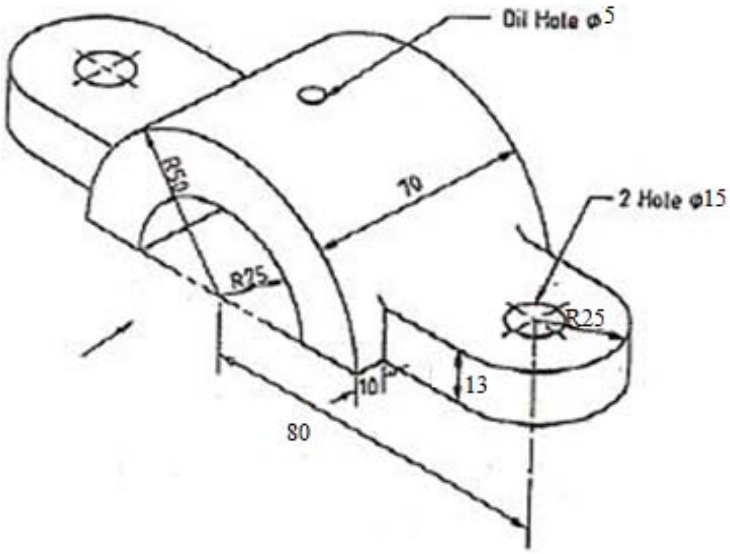
UNIT – V

9 Draw the isometric projection of a pentagonal prism of 30 mm base side and 65 mm of axis. The axis of the prism is perpendicular to H.P and one of its base edge is perpendicular to the V.P.

OR

10 Draw the front view, top view and side view of the object given below.



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