

Code: 15A03101a

B.Tech I Year II Semester (R15) Supplementary Examinations November 2017

ENGINEERING DRAWING

(Common to ECE and EIE)

Time: 3 hours

Max. Marks: 70

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

UNIT – I

- 1 Draw an epicycloid of rolling circle of diameter 40 mm which rolls outside another circle (base circle) of 150 mm diameter for one revolution. Draw a tangent and normal at any point and the curve.

OR

- 2 Draw a hypocycloid of a circle of 40 mm diameter which rolls inside another circle of 200 mm diameter for one revolution. Draw a tangent and normal at any point on it.

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 m on it

OR

- 4 Draw the projections of the following point on a common reference line:

- (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 V.P and 40 mm below HP
- (vii) Point V is in V.P and 35 mm above H.P

UNIT – III

- 5 A line AB, inclined at 40° to the V.P has its end 50 mm and 20 mm above the H.P the length of its front view is 65 mm and its V.T is 10 mm above the H.P. Determine the true length of AB its inclination with the H.P. and its H.T.

OR

- 6 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. Assume Initial position is parallel to HP.

UNIT – IV

- 7 A right circular cone, 40 mm base diameter and 60 mm long axis is resting on HP on one point of base circle such that its axis makes 45° inclination with HP and 40° inclination with VP. Draw its projections

OR

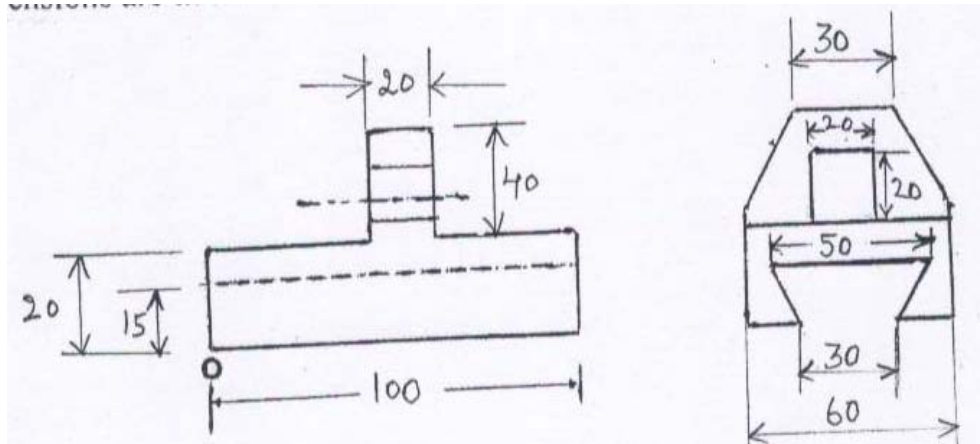
- 8 A hexagonal prism of side of base 30 mm and axis 70 mm long is resting on its base on H.P such that a rectangular face is parallel to V.P. It is cut by a section plane perpendicular to V.P and inclined at 30° to HP. The section plane is passing through the top end of an extreme lateral edge of the prism. Draw the development of the lateral surface of the cut prism.

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UNIT - V

- 9 Draw the isometric view of the given orthographic projection of the object? All dimensions are in mm.



OR

- 10 Make free hand sketches of the front, top and right side views of the object shown in figure below. All dimensions are in mm

