Code No: R19ES1103 **R19** SET - 1

I B. Tech I Semester Supplementary Examinations, November - 2020
ENGINEERING DRAWING
(Com. to CE, EEE, ME, ECE, CSE, Chem E, EIE, IT, Pet E, Agri E)

Time: 3 hours Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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1. a) Draw circumscribed hexagon in the circle of 50mm diameter. (5M)

   b) A circle of 40 mm diameter rolls on a horizontal line for one complete revolution without slipping. Trace the path of a point on the circumference of circle. Name the curve. (10M)

Or

2. a) 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. (8M)

   b) The vertex of a hyperbola is 65 mm from its focus. Draw the curve if the eccentricity is 3/2. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix (7M)

3. a) Draw the projection of following points by keeping 25 mm distance between projectors. (8M)
   (i) A point R is 15 mm above HP and 20 mm in front of the VP.
   (ii) A Point S is 20 mm below HP and 15 mm in front of the VP.
   (iii) A point T is 12 mm above HP and in the VP.
   (iv) A point U is in the HP and 25 mm behind VP

   b) Draw the projections of straight line AB 60 mm long parallel to HP and inclined at angle of 40^{o} to VP. The end A is 30 mm above HP and 20 mm in front of VP. (7M)

Or

4. A line CD 75 mm long has its end A 10mm above HP and 15mm in front of VP. Its top view and front view measures 60mm and 40mm respectively. Draw the projections of the line and determine its inclinations with the HP and VP. (15M)

5. A square lamina PQRS of side 40 mm lies on HP such that the diagonal PR is inclined to HP at 30^{0} and the diagonal QS are inclined to VP at 45^{0}. Draw its projections. (15M)

Or

6. A hexagonal plane of side 25mm is resting on one of its sides in the HP in such a way that the side on which it rests makes an angle of 30◦ with the VP. The plane makes an angle of 45◦ with the HP. Draw the projections. (15M)

7. a) A triangular prism, 40 mm side of base and 60 mm length of axis, has its axis perpendicular to the VP. Draw the projections if one of the rectangular faces is parallel to the HP and 20 mm above the HP. (5M)

   b) A cone of base 60 mm diameter and height 80 mm is resting on a point on the circumference of base on the HP with its apex 55 mm above the HP. Draw the projections. (10M)

Or
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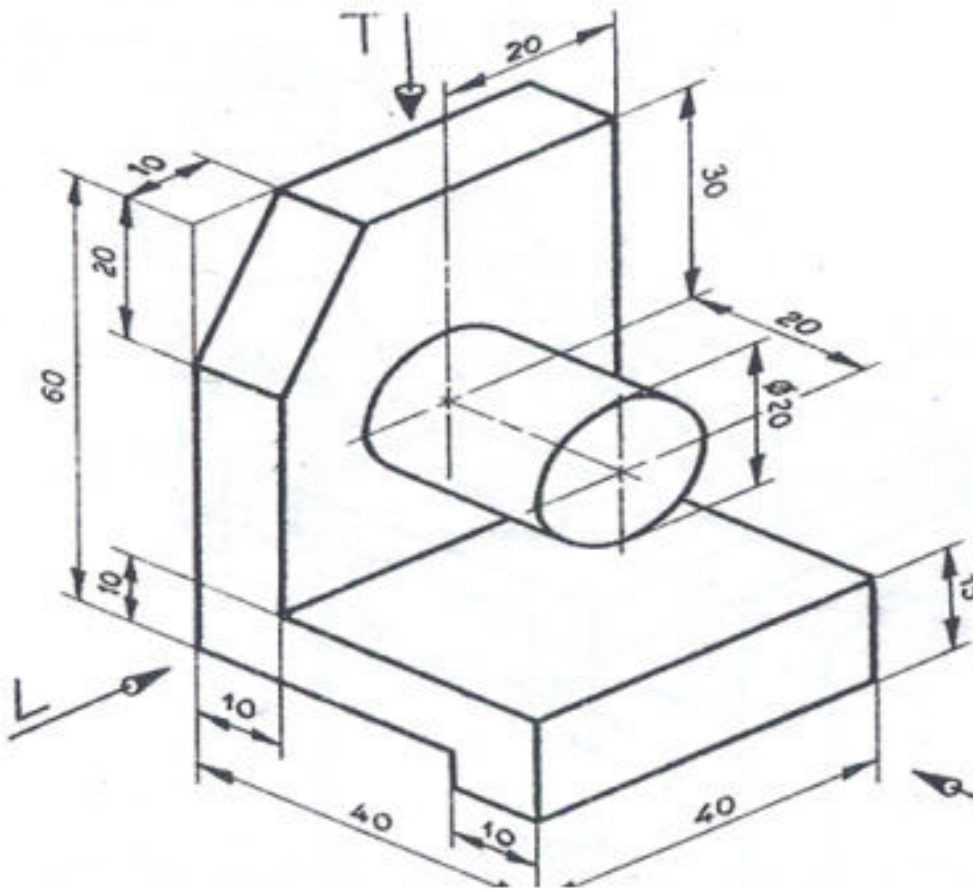
8. A circular disc of diameter 80 mm and thickness 30 mm has a centrally cut triangular hole of side 45 mm. The disc rests on the HP on a point on the circumference of an end such that a flat face of the hole makes 45° with the HP. Draw the projections. (15M)

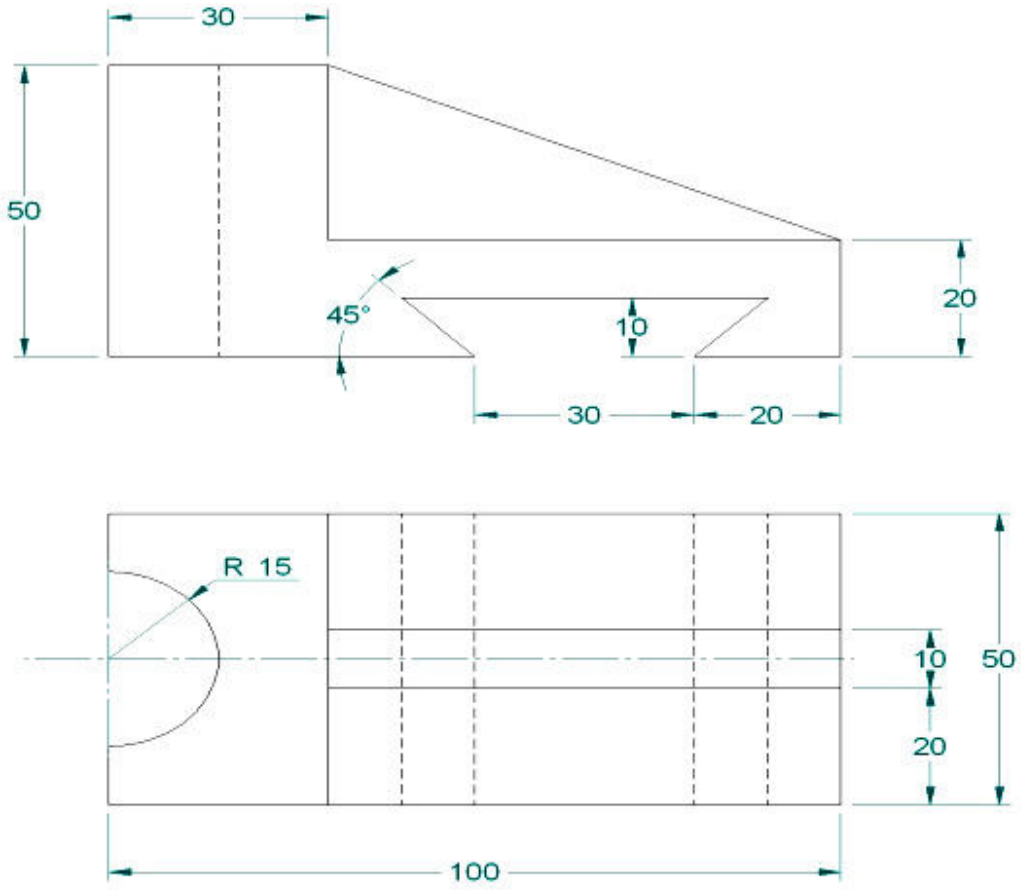
9. Convert the isometric projection of the given Figure into orthographic projections by drawing the front view, top view and side view. (15M)
(All dimensions are in mm)



Figure

Or

10. Figure shows two views of an object. Draw an isometric view. (15M)



Figure