AM/CS/CYS/DS 114 (R-22)

Total No. of Questions : 10] [Total No.of Pages : 02

I/IV B. Tech. DEGREE EXAMINATIONS, MARCH - 2023

First Semester

AIML/CS/CYS/DS

ENGINEERING GRAPHICS

Time : **Three Hours** Maximum : **70** Marks

Answer All Questions

Answer ONE question from each Unit. 5x14=70 M

UNIT - I

1. Draw the ellipse when given the eccentricity as 3/4 and the distance between the focus and the directrix given as 70 mm. Draw a tangent and normal to the curve at a point which is at a distance of 50mm from the directrix.

(OR)

2. Draw a cycloid of a circle of diameter 50mm for one revolution. Also draw a tangent and a normal to the curve at a point 35mm above the base line.

UNIT - II

3. A line AB, 65 mm long has its end A 45 mm above the H.P and 25 mm in front of V.P. It is inclined at 45^o to the H.P and 55^o to theV.P. Draw its projections.

(OR)

4. Draw the projections of the following points keeping the distance between the projectors as 30mm on the same reference line. Also mention the quadrants in which the points belong to

   a) A, 30 mm above the H.P. and 25 mm in front of V.P.

   b) B, 25 mm above the H.P. and 60 mm behind the V.P.

   c) C 45 mm below the H.P. and 45 mm behind the V.P.

   d) D, in the V.P. and 30 mm below the H.P.

   e) E is in HP and 45 mm in front V.P.

   f) F is 35 mm below the HP and 40 mm in front V.P.

   g) G is in HP and 40 mm behind V.P.

P.T.O.

UNIT - III

5. A hexagonal plane of negligible thickness and having edge length 20mm is resting on one of its sides on HP. The surface of the plane is inclined 40^o to HP and resting side makes an inclination of 50^o to VP. Draw the projections of the plane.

(OR)

6. A semi-circular plate of 80mm diameter has its straight edge in the VP and inclined at 60^o to the HP, the surface of the plate makes an angle of 30^o with the VP. Draw its projections.

UNIT - IV

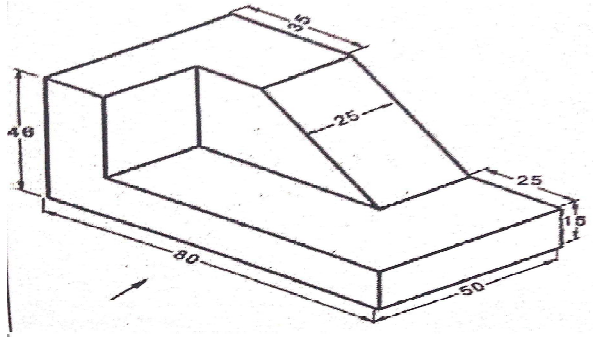
7. A pentagonal prism of base side 30mm and axis 60mm has an edge of its base in the VP and inclined at 45^o to the HP. Its axis is inclined at 30^o to the VP. Draw its projections.

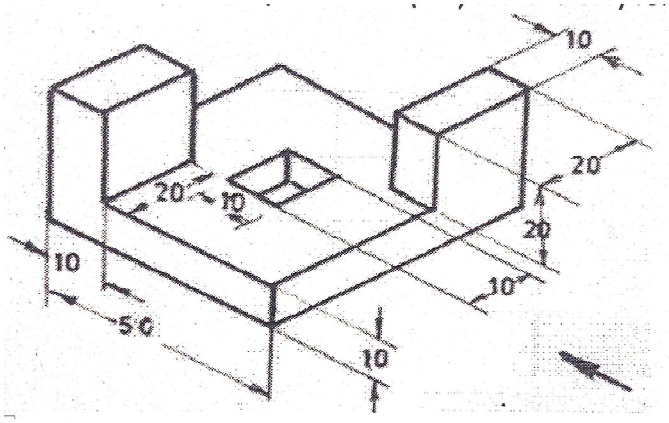
(OR)

8. Draw the projections of a regular pentagon of 40 mm side, having its surface inclined at 30^o to the H.P and a side parallel to the H.P and inclined at an angle of 60^o to the V.P.

UNIT - V

9. Draw the Orthographic views (F.V., T.V. and S.V) for the following diagram.



(OR)

10. Draw the Orthographic views (F.V., T.V. and S.V) for the following diagram.