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

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

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

First Semester

AM / 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 a parabola when given the distance between directrix and focus as 70 mm. Draw a tangent and normal to the curve at a point which is at a distance of 50 mm from the axis.

(OR)

2. A coin of 40 mm diameter rolls over a horizontal table without slipping. A point on the circumference of the coin in contact with the table surface in the beginning and after one complete revolution. Draw the path traced by the point. Draw a tangent and normal at a point 25 mm from the table.

UNIT - II

3. A straight line PQ has its end P 20 mm above the HP and 30 mm in front of the VP and the end Q is 80 mm above the HP and 70 mm in front of the VP. If the end projectors are 60 mm apart, draw the projections of the line. Determine its true length and true inclinations with the reference planes.

(OR)

4. Draw the projections of the following ponts on a common reference line keeping the distance between their projections 30 mm apart.
   a) Point A is 30 mm below the HP and 50 mm in front of the VP.
   b) Point B is in the HP and 40 mm behind the VP.
   c) Point C is 35 mm in front of the VP and in the HP.
   d) Point D is 50 mm above the HP and 30 mm behind the VP.
   e) Point E is 30 mm below the HP and 50 mm behind the VP.
   f) Point F is in the VP and 50 mm below the HP.
   g) G, in the H.P. and 25 mm behind the V.P.

P.T.O.

UNIT - III

5. A 30^o - 60^o set square of longest side 90 mm long is in VP and it's surface 45 degrees inclined to VP. One end of the longest side is 10 mm and other end is 35 mm above HP. Draw its projections.

(OR)

6. A regular pentagon of 40 mm side has a corner in the H.P. its surface is inclined at 45^o to the H.P. and the top view makes an angle of 60^o with the V.P. draw its projections.

UNIT - IV

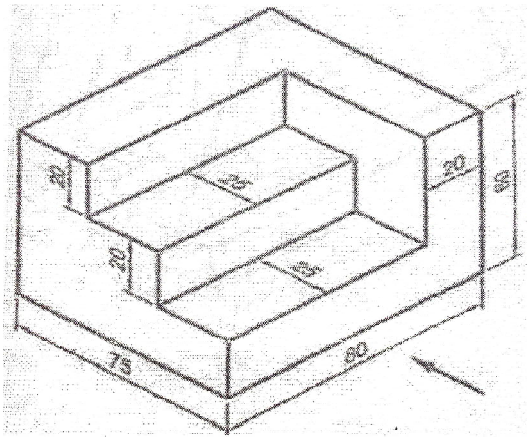
7. A Square prism, having a base with a 35 mm side and a 60 mm long axis, rests on one of its base edges in the HP such that the axis is inclined at 45 degrees to the HP and 45 degrees to the VP. Draw its projections.

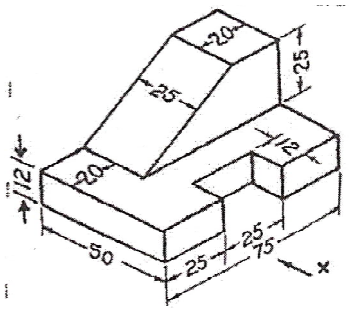
(OR)

8. A pentagonal prism of base side 30 mm and axis 60 mm 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.

UNIT - V

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



(OR)

10. Draw the front view, top view and side view of the figure.