R20

Code No: ME104ES

CMR ENGINEERING COLLEGE

(UGC-Autonomous)
Kandlakoya(V), Medchal Road, Telangana-501401
I-B. Tech I-Semester Examinations, July - 2021
ENGINEERING GRAPHICS
(Common to CSM, ME)

Time: 3 Hours **Max. Marks: 70**

Answer any Five Questions
All Questions Carry Equal Marks

- - -

1. a) Construct an ellipse when the distance between the focus and the directrix is 30 mm and the eccentricity is ¾. Draw Tangent and Normal at any point P on the Curve. **[7]**

   b) Construct a plain scale of RF = 1:50,000 to show kilometers and hectometers and long enough to measure up to 7 km. Mark a distance of 5.3 km on the scale **[7]**

2. Draw a hypo cycloid of a circle of 40 mm. diameter which rolls inside another circle of 160 mm diameter for one complete revolution. **[14]**

3. a) A point P is 50 mm from both the reference planes. Draw its projections in all possible positions **[4]**

   b) A line PQ 65 mm long has its end P, 15 mm above the H.P and 15 mm in front of the V.P. It is inclined at 55^0 to the H.P and 35^0 to the V.P. Draw its projections, and find its true length. **[10]**

4. Draw the projections of a circle of 50 mm diameter resting in the H.P. on a point A on the circumference, its plane is inclines at 45^0 to the H.P. and
   i)The top view of the diameter AB making 30^0 angle with the V.P
   ii)The diameter AB making 30^0 angle **[14]**

5. A Square Prism, base 40 mm side and height 65 mm, has its axis inclined at 45^0 to the H.P. and has an edge of its base, on the H.P. and inclined at 30^0 to the V.P. Draw its Projections. **[14]**

6. A Pentagonal Pyramid of 30 mm side of base and height of 45mm stands on its base with an edge of the base parallel to VP. A section plane making an angle of 45^0 to HP cuts the pyramid at a distance of 15mm from apex. Draw its top view and front view. **[14]**

7. A Cone having diameter of base 75 mm axis 75 long is resting on its base on H.P. It is cut by a section plane perpendicular to V.P and inclined at 40^0 to H.P and cutting the axis at a point 40 mm from base. Draw the development of the part of the cone containing the apex. **[14]**

8. Draw the front view, side view from the right, and top view of the block as shown in fig.1 (All dimensions are in mm) **[10]**

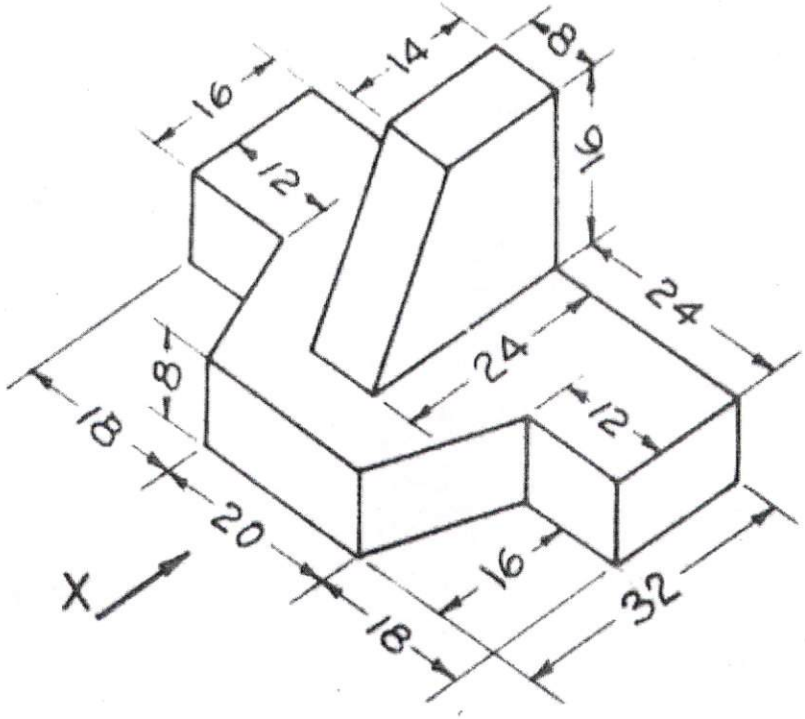

fig.1

b) Explain about any Four Commands in AutoCAD ? **[4]**

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