Code No: 09A10391

R09

Time: 3 hours   **Max. Marks: 75**

Answer any five questions
All questions carry equal marks
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1.   The distance between two stations is 100 km and on a road map it is shown by 30 cm. Draw a diagonal scale and indicate distances of 46.8 km and 32.4 km on it.   [15]

2.   A line of 100 mm long makes an angle 35^0 with H.P and 45^0 with V.P. Its mid Point is 20 mm above H.P and 15 mm in front of V.P. Draw the projections of the line.   [15]

3.   A hexagonal prism of base 25 mm side and axis 45 mm long, is positioned with one of its base edges on H.P. such that the axis is inclined at 30^0 to the H.P and 45^0 to V.P. Draw its projections.   [15]

4.   A cone of base 50 mm diameter and axis 60 mm long is resting on its base on H.P. A section plane perpendicular to V.P and H.P. cuts the cone at a distance of 10 mm from the axis. Draw the development of the cut solid.   [15]

5.   A vertical cylinder of 80 mm diameter is penetrated by another cylinder of 50 mm diameter. The axis of the penetrating cylinder is parallel to both H.P and V.P and is 10 mm away from that of the vertical cylinder. Draw the projections.   [15]

6.   A cylinder, with diameter of base 60 mm and axis 70 mm long, is resting on its base on H.P. A section plane, perpendicular to V.P and inclined at 45^0 to H.P, passes through the axis at a distance of 20 mm from its top end. Draw the isometric projection of the truncated cylinder.   [15]

7.   Draw the following views of the object shown in below figure. All dimensions are in mm.
     i)   Front view
     ii) Top view
     iii) Side view from right.   [15]
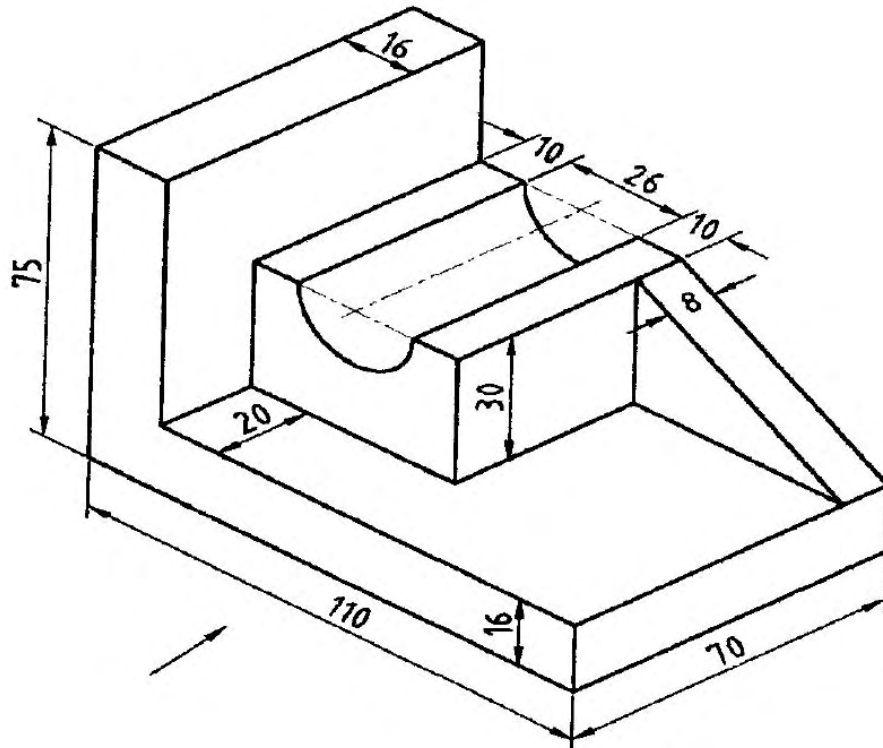
8.   A pentagonal pyramid of side base 25 mm and height 50 mm, rests with an edge of the base touching the P.P. The station point is on the central line passing through the apex and 80 mm from P.P and 60 mm above ground. Draw the perspective of the solid.

[15]

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