R13

Code No: 111AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year Examinations, September - 2023
ENGINEERING DRAWING
(Electronics and Communication Engineering)

Time: 3 Hours **Max Marks: 75**

Answer any five questions
All questions carry equal marks

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1. Construct a rectangular hyperbola when the distance of the focus from the directrix is 65 mm and eccentricity is 3/2. [15]

OR

2. An area covered by a triangle of base 12 cm and altitude 24 cm, represent an area of 36 km^2. Find the scale factor and construct a diagonal scale to read kilometers, hectometers and decameters. Mark the distance of 2.85 km and 4.23 km on it. [15]

3. The front view of line AB measures 65 mm and makes an angle of 45^0 with xy. A is on HP and VT of the line is 15 mm above HP. The line is inclined at 30^0 to VP. Draw the projections of the line and find its true length and inclination with HP. Also locate its HT. [15]

OR

4. Draw the projections of the regular pentagon of 50 mm side having its surface inclined at 45^0 with HP. A side of the pentagon lies on HP, inclined at 30^0 to VP. [15]

5. A hexagonal prism, with side of base 30 mm and axis 70 mm long, is resting on one of its longer edges on HP, with its axis inclined at 40^0 to VP. A rectangular face containing the longer edge, on which the prism rests is inclined at 30^0 to HP. Draw the projections of the prism. [15]

OR

6. A cylinder of base 80 mm diameter and 100 mm long, lies on H.P with its axis parallel to both H.P and V.P. It is cut by a vertical section plane, which intersects the axis of the cylinder at an angle of 30^0 at its mid point. Draw the sectional front view and determine the true shape of the section. [15]

7. A vertical cone of diameter of base 40 mm and height 50 mm, is cut by a section plane, perpendicular to VP and inclined at 30^0 to HP, so as to bisect the axis. Draw the development of the truncated portion of the cone. [15]

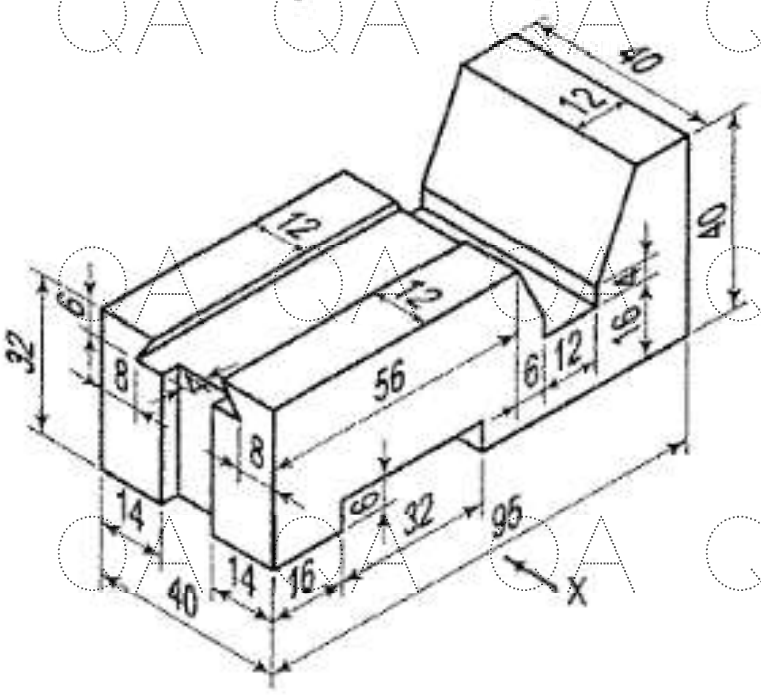
OR

8. A square prism of base 50 mm side and height 125 mm stands on the ground with a side of the base inclined at 30^0 to the VP. It is penetrated by a cylinder, 50 mm diameter and 125 mm long, whose axis is parallel to both the HP and VP and bisects the axis of the prism. Draw the projections of the curves of the intersection. [15]

9. A cylindrical block of base 60 mm diameter and height 90 mm, standing on the H.P with its axis perpendicular to the H.P. Draw its isometric view. [15]

OR

10. Draw the orthographic projections of the following isometric view. [15]



All dimensions are in mm

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