

**R18**

Code No: 151AD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year I Semester Examinations, October/November - 2020

ENGINEERING GRAPHICS

(Common to CE, ME, EIE, MCT, MMT, AE, MIE, PTM)

Time: 2 hours

Max. Marks: 75

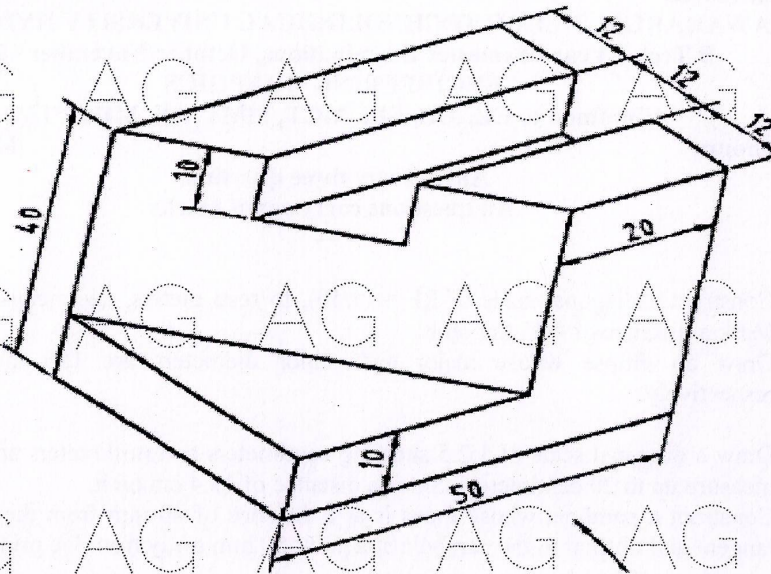
Answer any three questions  
All questions carry equal marks

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- 1.a) Construct a diagonal scale of RF = (1/50), to read meters, decimeters and centimeters. Mark a distance of 4.35 km on it.
- b) Draw an ellipse whose major and minor diameters are 150 mm and 100 mm respectively. [10+15]
- 2.a) Draw a diagonal scale of 1:2.5 showing centimeters and millimeters and long enough to measure up to 20 centimeters. Show a distance of 13.4 cm on it.
- b) Construct a parabola whose focus is at a distance of 40 mm from the directrix. Draw a tangent and normal to the parabola at a point 50 mm away from the principal axis. [10+15]
3. A line PQ 65 mm long has its end P, 15 mm above the HP and 15 mm in front of the VP. It is inclined at  $55^{\circ}$  to the HP and  $35^{\circ}$  to the VP. Draw its projections, and find its true length. [25]
4. A regular hexagon of side 20 mm has one of its sides inclined at  $30^{\circ}$  to VP. Its surface makes an angle of  $60^{\circ}$  with the ground. Draw its projections. [25]
5. Draw the projections of a square pyramid of base edges 30 mm and axis 54 mm, resting on its base on FIP with one base edge parallel to VP and axis perpendicular to the HP. [25]

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6. Draw the front view, top view and left side view of the object shown in figure. All dimensions are in mm. [25]



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