

Roll No. ....

Total Pages : 3

8217

BT-2/M-12

## ENGINEERING GRAPHICS & DRAWING

Option-I (2010-11)

Paper-ME-105-E

Time Allowed : 3 Hours]

[Maximum Marks : 100

**Note :** Attempt five questions in all, selecting at least one question from each Unit.

### UNIT-I

1. Draw the projections of following points on a common reference line, taking a gap of 25 mm between two consecutive vertical projectors :

- (i) Point P 30 mm above H.P. and 20 mm in front of V.P.
- (ii) Point Q 40 mm above H.P. and 20 mm behind V.P.
- (iii) Point R 26 mm above H.P. and in V.P.
- (iv) Point S 35 mm below H.P. and 40 mm behind V.P.
- (v) Point T 28 mm below H.P. and 30 mm in front of V.P.

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P. T. O.

2. Construct a diagonal scale showing Kilometre, Hectometre and Decametre in which a 2.5 cm long line represents 1 km and the scale is long enough to measure upto 7 km. Find R.F. and mark a distance of 4 km 5 hm 3 dm on it. 20

### UNIT-II

3. A line PQ is in first quadrant. Its ends P and Q are 15 mm and 45 mm in front of the V.P. respectively. The distance between the end projectors is 55 mm. The line is inclined at  $30^\circ$  to the H.P. and its H.T. is 8 mm above the XY line. Draw the projections of the line PQ and find its T.L. and locate its V.T. <http://www.kuonline.in> 20
4. An equilateral triangle shaped plate of side 40 mm is placed parallel to HP and 20 mm above it. It is placed, such that, one of the corners of the triangle is 10 mm in front of VP and the edge containing that corner is inclined at  $22^\circ$  to VP. Draw the projections of the plate. 20

### UNIT-III

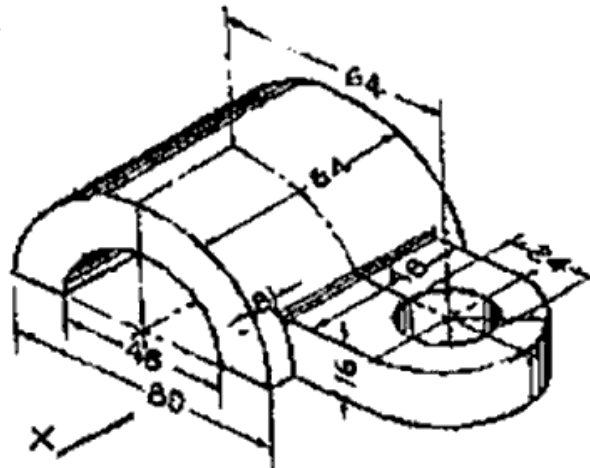
5. A pentagonal Prism, having base with a 30 mm side and 75 mm long axis, has a corner of its base on the ground and axis is inclined at  $60^\circ$  to the HP. Draw its projections if the plane containing that corner and the axis is parallel to the V.P. 20
6. Draw the development of the truncated hexagonal pyramid with a 40 mm base side and a 60 mm height, which is resting on its base in the HP such that an edge of the base is perpendicular to VP, when an auxiliary cutting plane making an angle of  $60^\circ$  with HP, bisects the axis. 20

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UNIT-IV

7. Draw the front view, top view and right side view of the following object : 20



8. Draw the profiles of the following Screw threads :

- (a) Knuckle thread
- (b) Isometric thread
- (c) Buttress thread
- (d) Acme thread.

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