Roll No. ..... Total Pages : 03

BT-2/M-18 32033

ENGINEERING DRAWING AND GRAPHICS

ME-105-N

Group I

Time : Three Hours] [Maximum Marks : 75

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

Unit I

1. A line AB is inclined at 30° to VP has its ends 20 mm and 50 mm above HP. The length of the front view is 65 mm and its VT is 10 mm above HP. Determine the true length of the AB, its inclination with HP and its HT. **15**

2. Draw the projections of the following Points on a common reference line, taking a gap of 20 mm between two consecutive vertical projectors : **15**
   (a) Point A 50 mm above H.P. and 30 mm in front of V.P.
   (b) Point B 55 mm above H.P. and 35 mm behind V.P.
   (c) Point C 65 mm H.P. and in V.P.
   (d) Point D 25 mm below H.P. and 20 mm behind V.P.

Unit II

3. A hexagonal plate of side 30 mm is resting on one of its sides on VP and inclined at 45° to HP. Its surface is inclined at 35° to VP. Draw its projections. **15**

4. A hexagonal pyramid of base side 30 mm and axis length 60 mm is resting on HP on one of its base corners with its axis inclined at 35° to VP and parallel to HP. Draw its projections when the base side containing the resting corner are equally inclined to HP. **15**

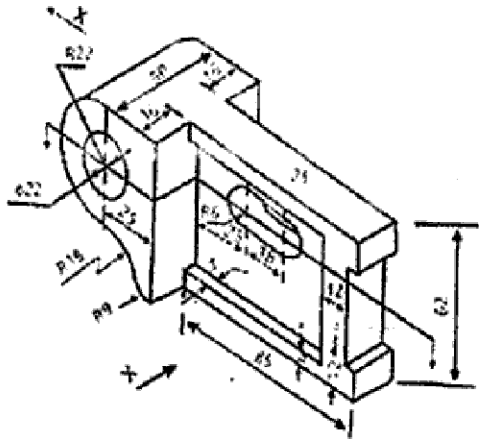
Unit III

5. A pentagonal pyramid of base side 30 mm and axis length 50 mm lies on one of its triangular faces on HP and with its axis parallel to VP. It is cut by a horizontal section plane whose VT passes through the centre of the base the pyramide. Draw the sectional plan. **15**

6. A hexagonal prism of base side 30 mm and axis length 65 mm is resting on HP on its base with two of its vertical faces perpendicular to VP. It is cut by a plane inclined at 50° to HP and perpendicular to VP and meets the axis of prism at a distance 10 mm from the top end. Draw the development of lateral surface of the prism. **15**

Unit IV

7. Draw the front view, top view and right side view of the following object : **15**



8. Describe the use of the following commands in AUTOCAD using suitable examples : **15**
   (a) Circle
   (b) Ellipse
   (c) Trim
   (d) Offset
   (e) Arc.