BT-I/D-21   41021

ENGINEERING DRAWING AND GRAPHICS ME-105N

Time : Three Hours]   [Maximum Marks : 75

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

Unit I

1. The projections of the following points on a common XY line, keeping the distance between two consecutive projectors as 25 mm :   **15**

    (i)   A, 40 mm above HP and 40 mm behind VP

    (ii)   B, 50 mm above HP and 40 mm in front the VP

    (iii)   C, 30 mm below HP and 40 mm in front the VP

    (iv)   D, 40 mm below HP and 50 mm behind the VP

    (v)   E, in VP and 40 mm above the HP

2. A line AB, 75 mm long, is inclined at 45° to HP and its top view makes an angle of 60° with XY. End A is in HP and 25 mm in front of VP. Draw its front view and determine its inclinations with VP.   **15**
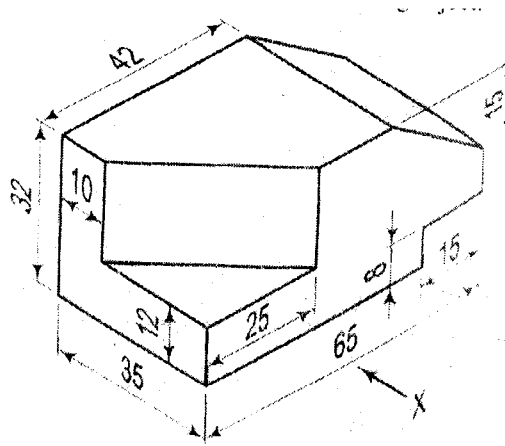
Unit II

3. Draw the projection of a circular lamina which has 50 mm as diameter and its plane vertical and inclined at 45° to VP. Its centre is 40 mm above HP and 60 mm in front of VP. Also show its traces. **15**

4. A pentagonal pyramid of base side 30 mm and axis length 60 mm is resting on HP on one of its base corners with its axis parallel to VP. Draw its projections when the slant edge containing the resting corner is vertical. **15**

Unit III

5. A square pyramid of base 25 mm side and axis 60 mm long is resting on H.P. on its base with edges equally inclined to V.P. It is cut by a section plane on axis at 20 mm from the apex and inclined at 45° to H.P. Draw Front view, Sectional top view and True shape of section.

   15

6. A pentagonal prism of 25 mm base edges and 50 mm long, is resting on its base with an edge of base at 45° to V.P. The prism is cut by a section plane inclined at 30° to H.P. and passes through a point 25 mm from the base along its axis. Develop the lateral surface of the truncated prism. **15**

Unit IV

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

8. Illustrate the use of the following AUTOCAD commands with suitable examples : **15**

    (a)   Circle   (b)   Mirror

    (c)   Trim   (d)   Arc