BT-2/M-19   32008

ENGINEERING GRAPHICS
AND DRAWING (Old)
ME-105-E (i)

Time : Three Hours]   [Maximum Marks : 100

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

Unit I

1. (a) What is engineering drawing ? Draw symbols for first angle of projection and third angle of projection and state the differences between these two.   **10**

   (b) The distance between two places is 240 km and its equivalent distance on map measures 12 cm. Draw the diagonal scale to indicate 273 km and 18 km.   **10**

2. A point A is 20 mm below HP and 30 mm behind VP and another point B is 25 mm above HP and 35 mm in front of VP. Draw its projection by taking the distance between the end projectors to be 50 mm. Also find the length of the line joining their plants and elevations. **20**
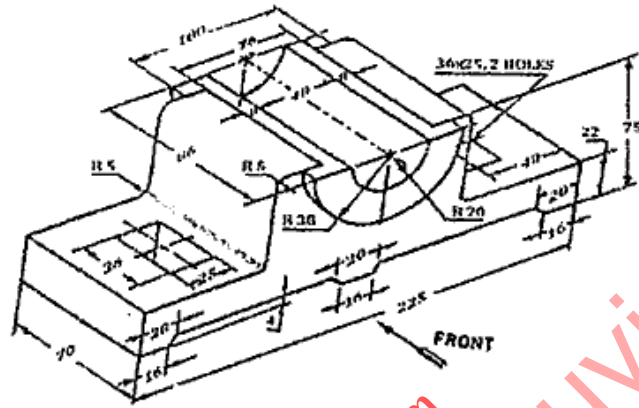
Unit II

3. A line AB 80 mm long has its end A 20 mm above HP and 25 mm infront of VP. The line is inclined to 45° to HP and 35° to VP. Draw its projections.   **20**

4. A rectangular plate of side 50×25 mm is resting on its shorter side on HP and inclined at 30° to VP. Its surface is inclined at 60° to HP. Draw its projections.   **20**

Unit III

5. A pentagonal prism of base side 30 mm and axis length 60 mm is resting on HP on one of its rectangular faces with its axis parallel to both HP and VP. Draw its projections.   **20**

6. Draw the development of the lower portion of a cylinder of diameter 40 mm and axis 60 mm when sectioned by a plane inclined at 30° to HP and perpendicular to VP and bisecting the axis.   **20**

Unit IV

7. Draw the orthographic views of the solid shown below :   **20**

8. What is the use of multi-start thread ? Sketch a double-start square thread and show the relation between pitch and lead. **20**