Roll No. ..... Total Pages : 2

BT-I/D-19 **31008**

ENGINEERING GRAPHICS AND DRAWING
Paper–ME-105E

Time : Three Hours] [Maximum Marks : 100

Note : Attempt any *five* questions.

UNIT–I

1. Describe various types of lines, usage and their notations. Differentiate between 1st and 3rd angle system of projections. 20

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

(i) Point E 40 mm above H.P. and 30 mm behind V.P.

(ii) Point F 30 mm above H.P. and 25 mm in front of V.P.

(iii) Point G 20 mm above H.P. and in V.P.

(iv) Point H 25 mm below H.P. and 30 mm behind V.P. 20

3. A line PQ is in first quadrant. Its ends P and Q are 20 mm and 45 mm in front of the V.P. respectively. The distance between the end projectors is 50 mm. The line is inclined at 30° 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. 20

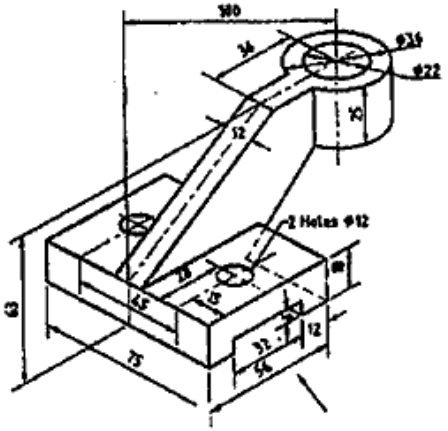
4. Draw the Top view and front view of a circular lamina if the surface of the lamina is perpendicular to H.P. and inclined at 30° to V.P. 20

UNIT–II

5. A cube of 30 mm sides is held on one of its corners on HP such that the bottom square face containing that corner is inclined at 30° to HP. Two of its adjacent base edges containing the corner on which it rests are equally inclined to VP. Draw the top and front views of the cube. 20

6. A cone of base diameter 40 mm and slant height 60 mm is kept on the ground on its base. An AIP inclined at 45° to the HP cuts the cone through the midpoint of the axis. Draw the development. 20

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



8. Draw the three orthographic views of Hexagonal Nut and Square headed bolt. 20