Total No. of Questions—**8**] [Total No. of Printed Pages—**4+1**

Seat No.	

[4856]-105

F.E. EXAMINATION, 2015

ENGINEERING GRAPHICS—I

(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. **:—** (*i*) Solve Q. No. **1** *or* Q. No. **2**, Q. No. **3** *or* Q. No. **4**, Q. No. **5** *or* Q. No. **6**, Q. No. **7** *or* Q. No. **8**.

(*ii*) Use only half imperial size drawing sheet as answer book.

(*iii*) Retain all construction lines.

(*iv*) Assume suitable data, if necessary.

1. The top view and front view of a straight AB measures 70 mm and 58 mm respectively. The straight line AB is inclined at an angle of 35° to horizontal plane. The end A is 15 mm above horizontal plane and 12 mm in front of vertical plane. The other end B is in the first quadrant. Draw the projections of the straight line AB. Find its true length and true inclination with vertical plane, also show its vertical and horicontal traces. [12]

Or

2. A circle of 50 mm diameter is resting on HP on end A of is diameter AC which is 30° inclined to HP while it makes 45° inclined to VP. Draw its projections. [12]

P.T.O.

3. A hexagonal prism of base 25 mm and 15 mm long is positioned with one of its base edges on HP such that the axis is inclined at 30° to HP and 45° to VP. Draw its projections. [13]

Or

4. (*a*) Point P is 40 mm and 30 mm from horizontal and vertical axes respectively. Draw Hyperbola through it. [7]

(*b*) A right circular cone of base diameter 50 mm and axis height 60 mm has it is base in horizontal plane. Draw the development of the lateral surface of cone. [6]

5. Using first angle method, draw the following views for the object shown in Fig. 1 :

(*a*) Sec. Elevation (Section A-A) [4]

(*b*) Plan [4]

(*c*) LHSV [4]

(*d*) Give all dimensions. [1]

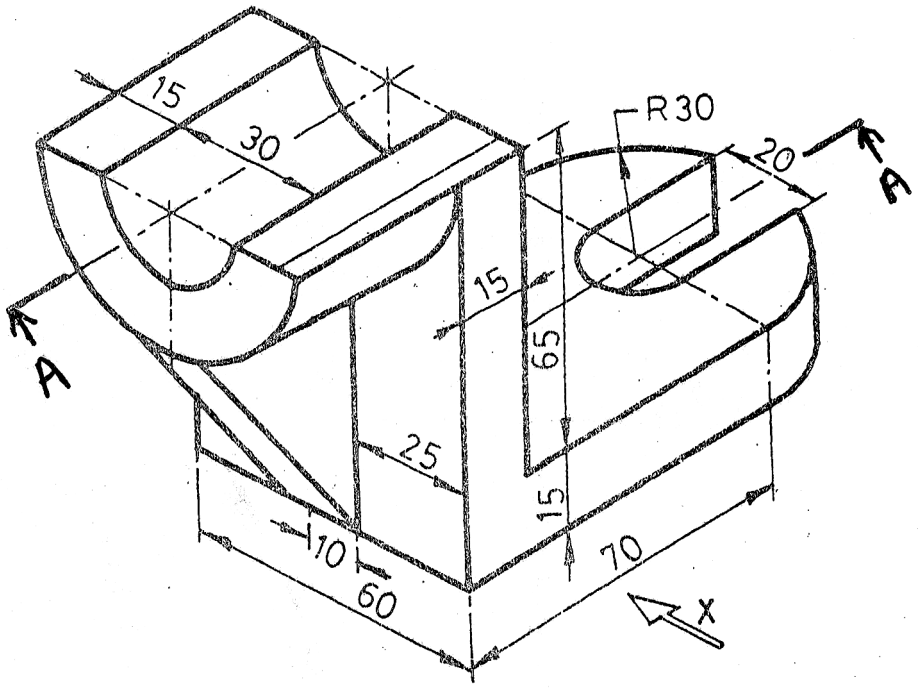

Fig. 1

Or

6. Using first angle method, draw the following views for the object shown in Fig. 2 :

(*a*) Elevation from the direction of arrow [4]

(*b*) Plan [4]

(*c*) Sectional right hand side view (Section A-A) [4]

(*d*) Give all dimensions. [1]

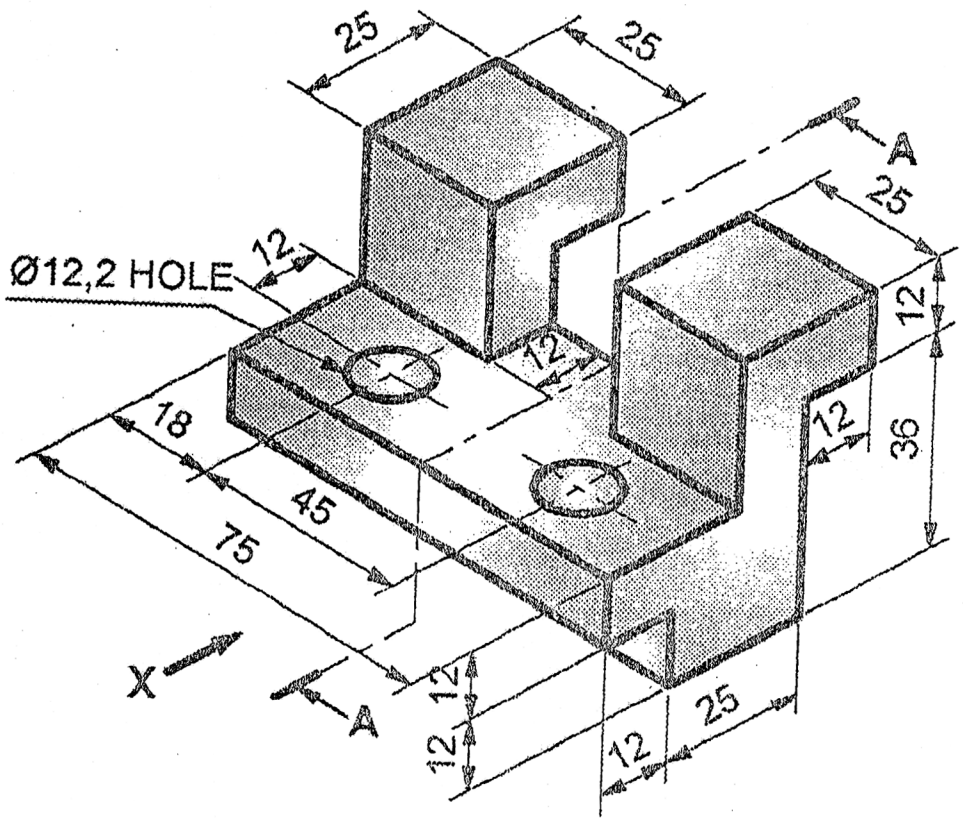

Fig. 2

7. Fig. 3 shows front view, top view, side view. Draw its isometric view by natural scale and show overall dimensions. [12]

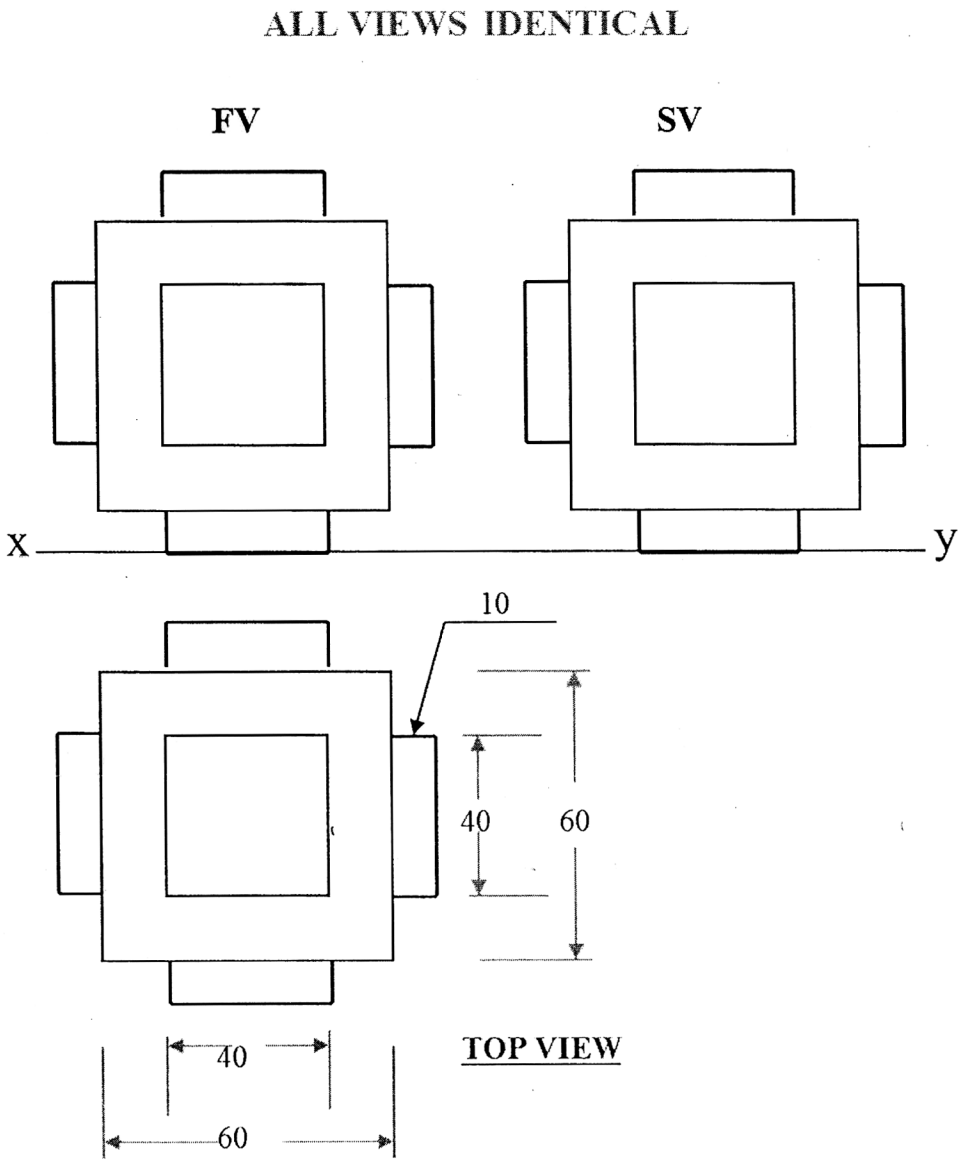

Fig. 3

Or

8. Fig. 4 shows front view, top view. Draw its isometric view by natural scale and show overall dimensions. [12]

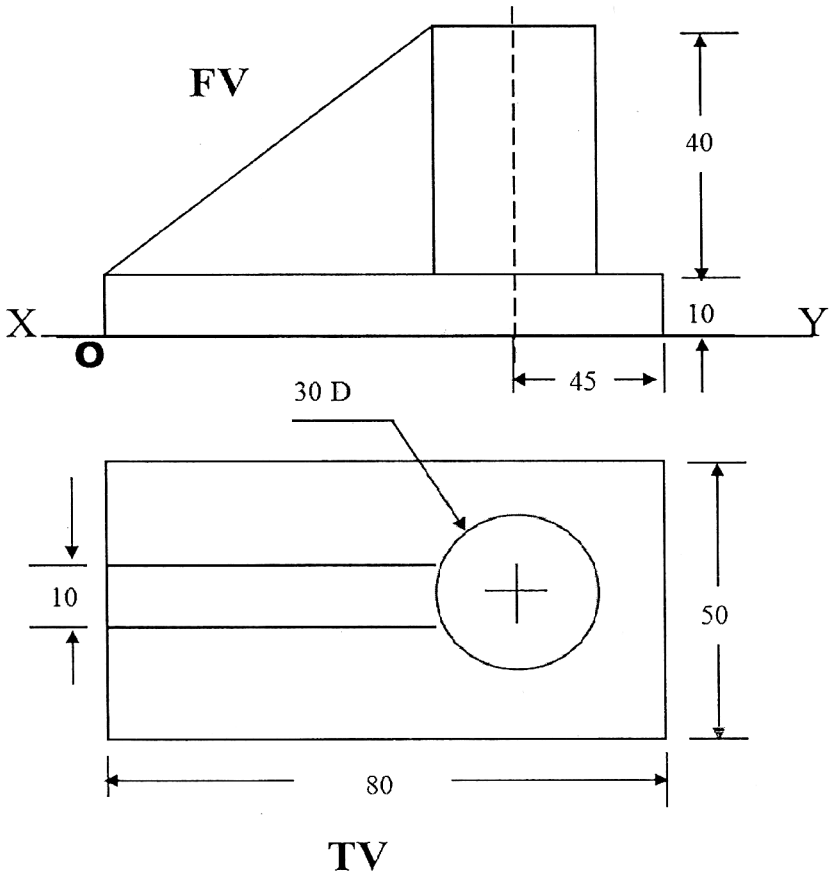

Fig. 4