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C16–EC/CHPC/PET–**107**

6031

BOARD DIPLOMA EXAMINATION, (C–16)

SEPTEMBER/OCTOBER - 2020

DECE—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

Time : 3 hours] [*Total Marks* : 60

PART—A 5×4=20

Instructions : (1) Answer **all** questions.
(2) Each question carries **five** marks.
(3) All dimensions are in mm.

1. Write the following using vertical letters of 14 mm height :
"SAY PROUDLY WE ARE INDIANS"

2. Redraw the correct means of Fig. 1 and indicate it with chain and unidirectional dimensioning :

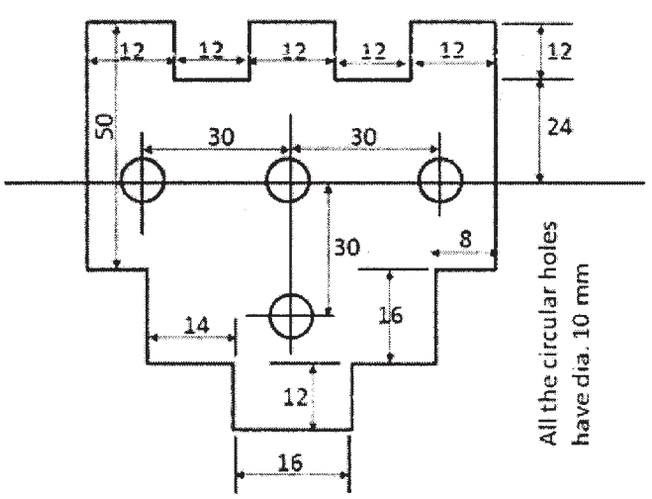

Fig. 1

3. Construct a regular pentagon of side 30 mm. Use any one of the methods.

4. Draw the auxiliary view of the inclined surface shown in Fig.2 :

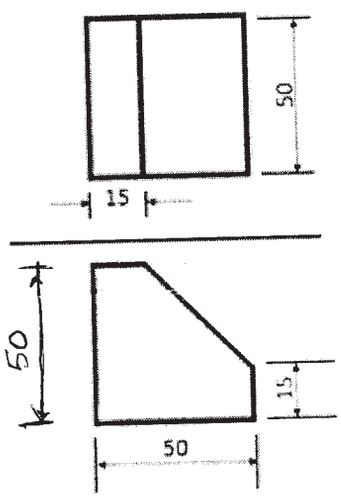

Fig. 2

PART—B 10×4=40

Instructions : (1) Answer *any* **four** questions.
(2) Each question carries **ten** marks.
(3) All dimensions are in mm.

5. Draw an involute to a circle of radius 20 mm.

6. A line *AB*, 90 mm long, is inclined at 30° to the HP and 45° to the VP. Its end *A* is 12 mm above the HP and 20 mm in front of the VP. Draw the projections of line *AB*.

7. A hexagonal prism of base edge 25 mm and height 60 mm is resting on HP with one of its base edges parallel to VP. It is cut by a plane perpendicular to VP and inclined at 30° to HP and is passing through midpoint of axis of prism. Draw the sectional top view and true shape of the section.

8. Draw the front view, top view and right-hand side view of the object shown in the Fig. 3 :

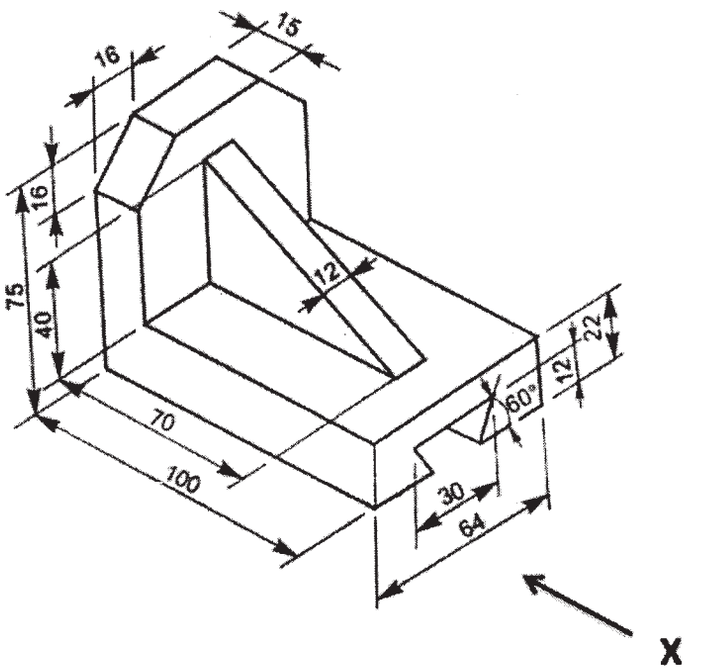

Fig. 3

9. From the given front view and top view and left-hand side view (Fig. 4), draw the isometric view :

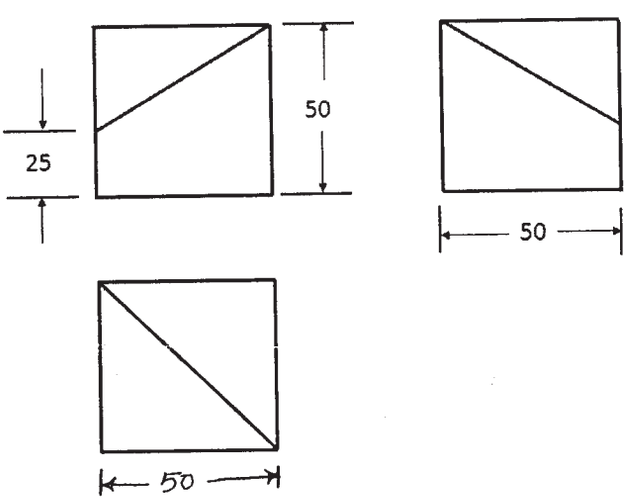

Fig. 4

10. A hexagonal prism of base side 30 mm and height 65 mm is resting on the ground with one of its base edges parallel to VP and is cut by a plane making 60° to HP and passing through the axis at a height of 40 mm from base. Develop the lateral surface of the prism when its truncated portion is removed.

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