7005

BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

FIRST YEAR (COMMON) EXAMINATION

ENGINEERING DRAWING

Time : 3 hours]   [*Total Marks* : 60
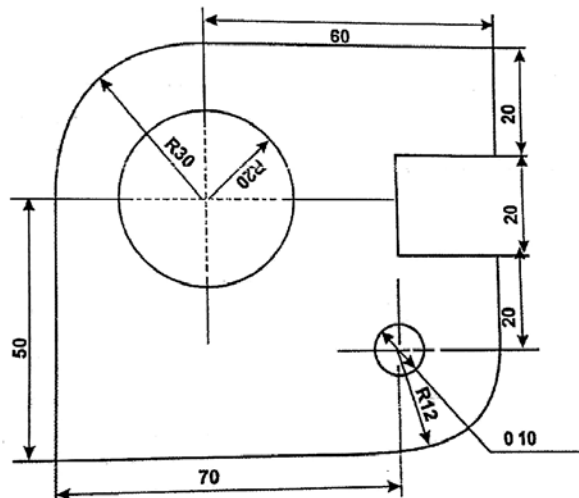
PART—A

5×4=20

Instructions :   (1) Answer **all** questions.

(2) Each question carries **five** marks.

(3) **All** dimensions are in mm.

1.   Print the following in single stroke vertical lettering of 10 mm size in capital letters.

"TECHNICAL EDUCATION"

2.   Redraw the following figure to full scale and dimension as per unidirectional system.

3. Draw a common external tangent to two unequal circles of radius 25 mm and 15 mm whose centres are 80 mm apart.

4. Draw the projections of a point which is at 55 mm above HP and 40 mm behind VP. Draw its projections.

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 a helix of pitch 60 mm on a cylinder of diameter 50 mm.

6. A cylinder of base 30 mm diameter and axis 50 mm long is resting with its base on HP and axis 25 mm in front of VP. Draw the projections.

7. A right circular cylinder of diameter 60 mm and height 75 mm rests on its base such that the axis is inclined at 45° to HP and parallel to VP. A cutting plane parallel to HP and perpendicular to VP cuts the axis at a distance of 50 mm from the bottom face. Draw the front view and sectional top view.

8. Draw front view, top view and side view of the object given below. X indicates front view, Z indicates top view and Y indicates side view.
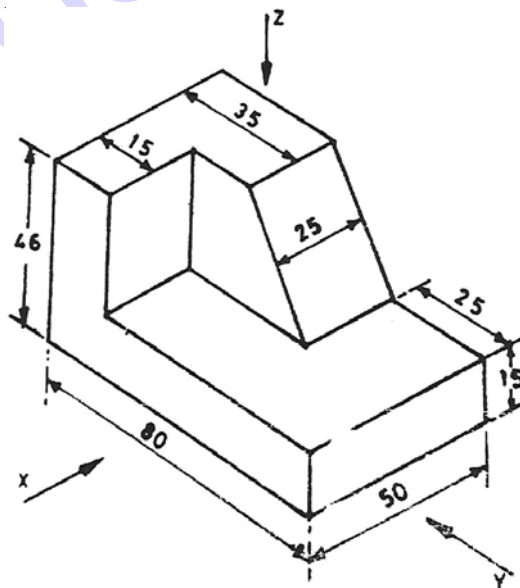
9. Draw an isometric view of an object whose orthographic views are given below :
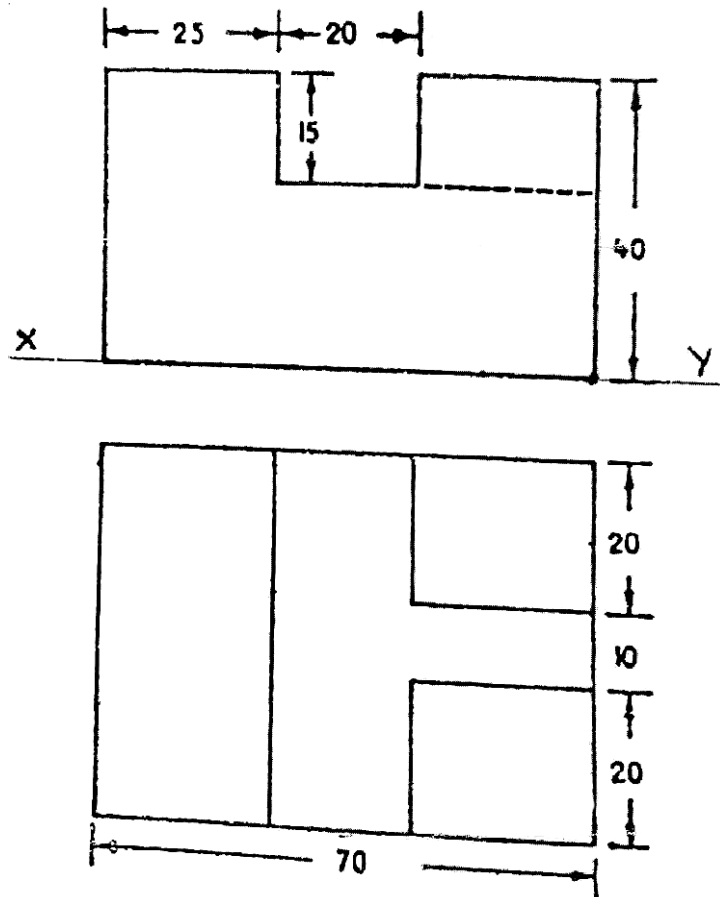
10. A hexagonal prism of side of base 20 mm and height 50 mm is standing vertically on HP with its one rectangular face parallel to VP. It is cut by a plane which is inclined at 45° to HP, perpendicular to VP and passing through one of the top corners of the prism. Develop the lateral part of the cut prism.

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