7005

BOARD DIPLOMA EXAMINATION, (C-20)

FEBRUARY/MARCH —2022

FIRST YEAR (COMMON) EXAMINATION

ENGINEERING DRAWING

Time : 3 hours]   [*Total Marks* : 60
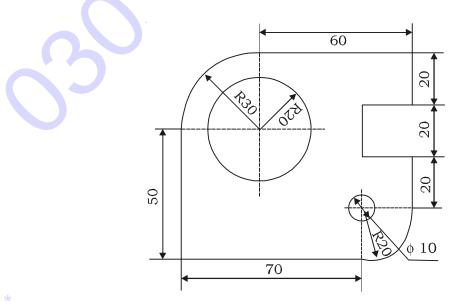
PART—A   5×4=20

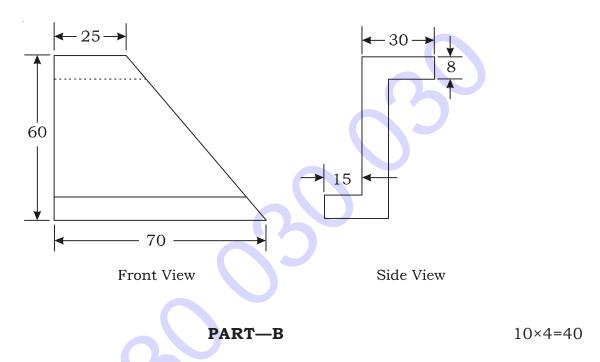**Instructions :** (1) Answer **all** questions.

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

(3) All dimensions are in mm.

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

"CLEAN AND GREEN IS OUR DREAM"

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

3. Draw a common external tangent to two circles of unequal radii say 26 mm and 20 mm. The central distance of which is 75 mm.

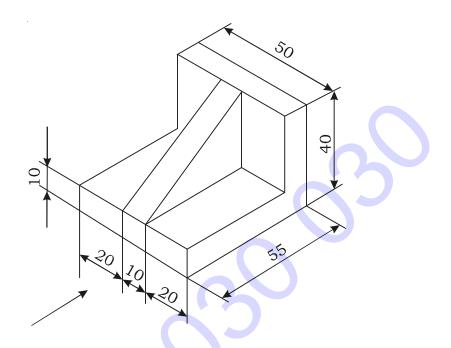**4.** Draw the auxiliary view of the inclined surface of the given figure below :

Front View   Side View

<div align="center">

PART—B   10×4=40

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Instructions : (1) Answer *any* **four** questions.

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

(3) All dimensions are in mm.

5. Draw the involute of a circle of diameter 30 mm and also draw the tangent to the curve at a distance of 60 mm from the centre.

6. A hexagonal pyramid of base 30 mm and height 60 mm rests with its base on HP such that one of the edges of the base is parallel to and 10 mm in front of VP. Draw its projections.

7. A square prism with a base side of 45 mm and an axis length of 90 mm is resting on its end on the HP. All the vertical faces are equally inclined to the VP. A vertical section plane passing through the mid points of two adjacent sides of base cuts the prism. Draw the sectional top view and sectional front view of the prism.
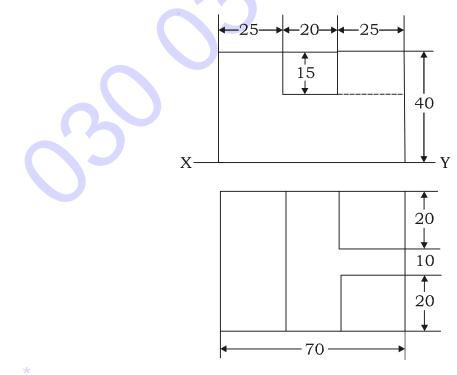
8. Draw the front view and top view of the object shown below :

9. Draw an isometric view of an object whose orthographic views are given below :

3

10. A pentagonal prism of side 25 mm and axis 75 mm is resting with its base on ground. A cutting plane inclined at 30° to the HP and passing through mid-height of the axis cuts the solid. Develop the lateral surface of the bottom portion of the prism.

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