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C16- COMMON-107**6005****BOARD DIPLOMA EXAMINATION, (C-16)****DECEMBER—2022****FIRST YEAR (COMMON) EXAMINATION****ENGINEERING DRAWING**Time : 3 hours][Total Marks : 60**PART—A**

5×4=20

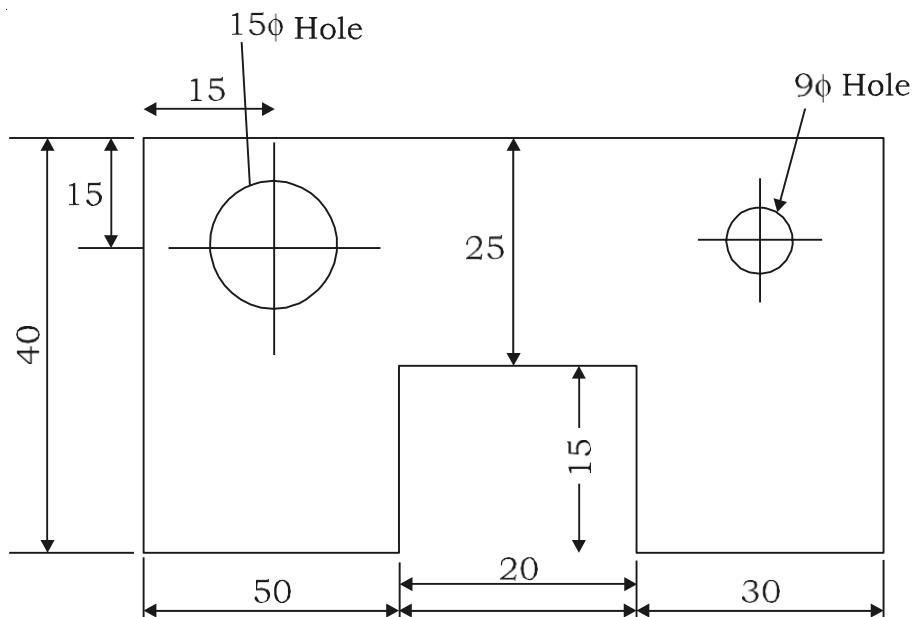
Instructions : (1) Answer **all** questions.

- (2) Each question carries **five** marks.
- (3) All dimensions are in mm.

1. Print the following in single-stroke vertical lettering of 12 mm size in capital letters :

“DRAWING IS THE LANGUAGE OF ENGINEERS”

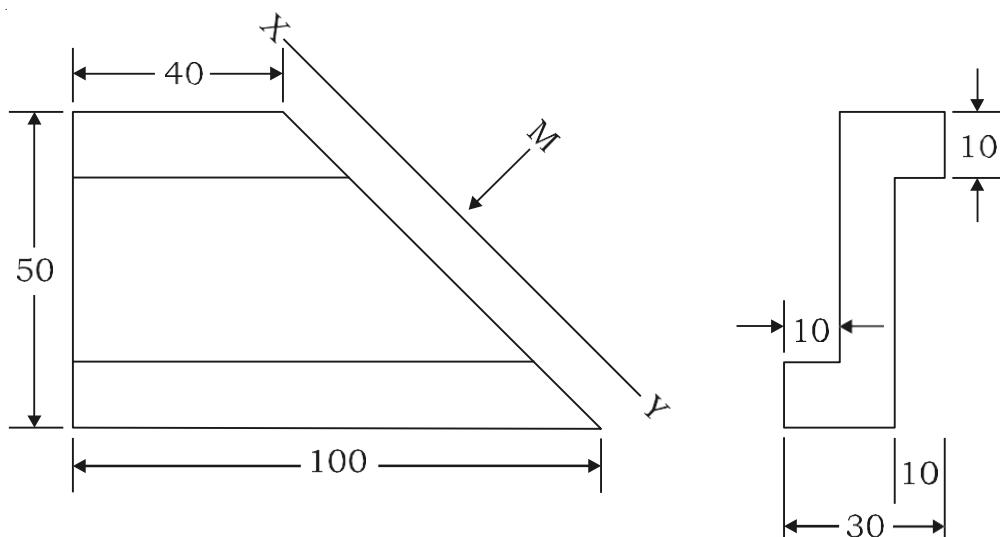
2. Redraw the given figure to full scale, dimension it as per SP : 46-1988 :



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3. Draw the external tangent to two unequal circles of radii 20 mm and 15 mm. The distance between the centers are 70 mm.
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4. Draw the auxiliary view of the inclined surface of the given figure below :



PART—B

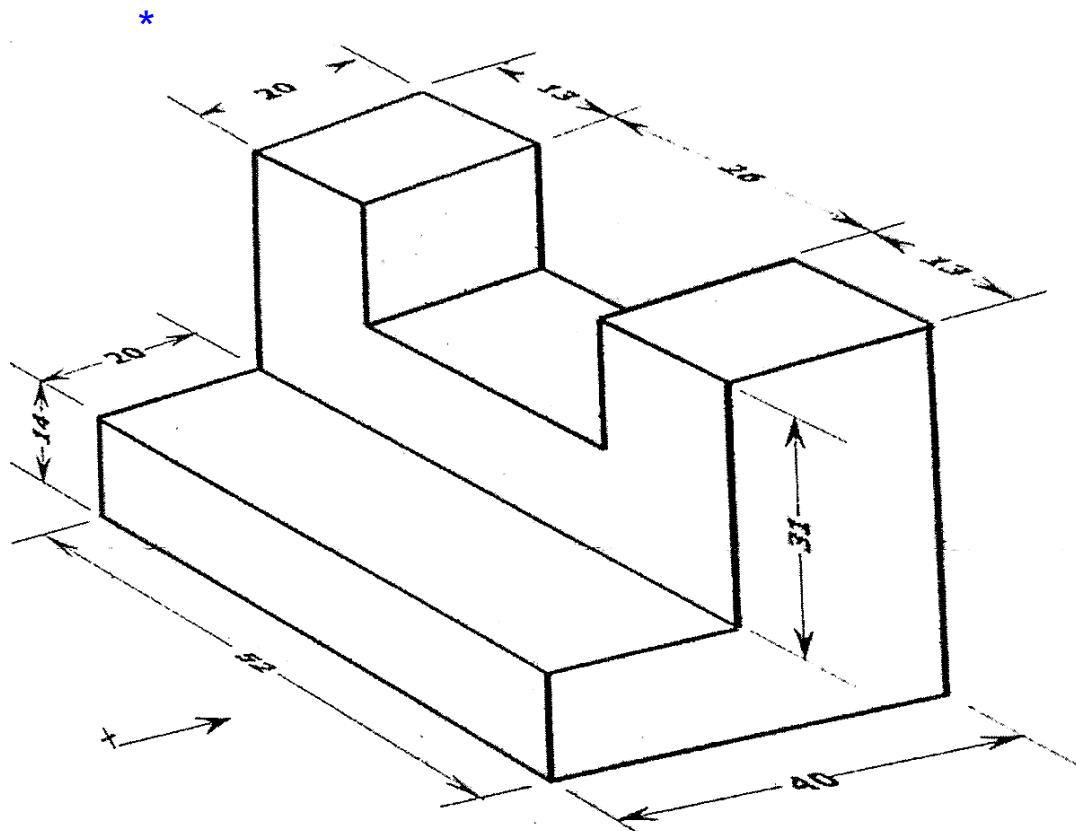
$10 \times 4 = 40$

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

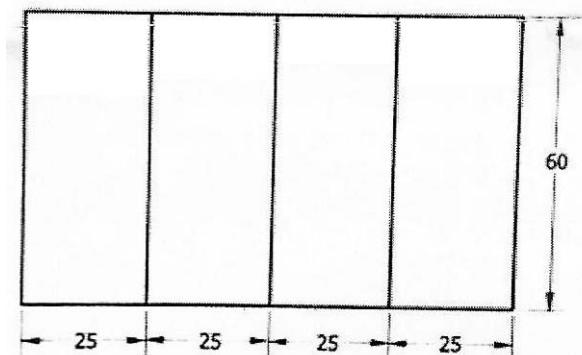
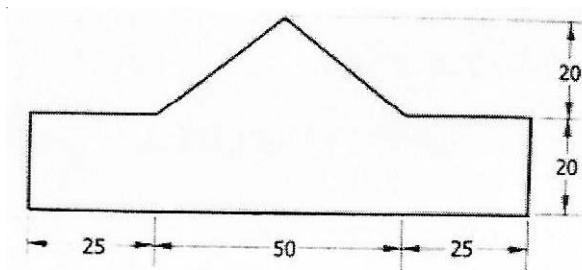
- * 5. Draw an involute on a circle of radius of 20 mm.
6. A rectangular plane of size 40 mm \times 30 mm is inclined to the HP at 30° . Its shorter side is parallel to the HP and inclined at 45° to VP. Draw the projections.
7. A right circular cylinder of diameter 60 mm and height 75 mm rests on its base such that its axis is inclined at 45° to HP and parallel to VP. A cutting plane parallel 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.

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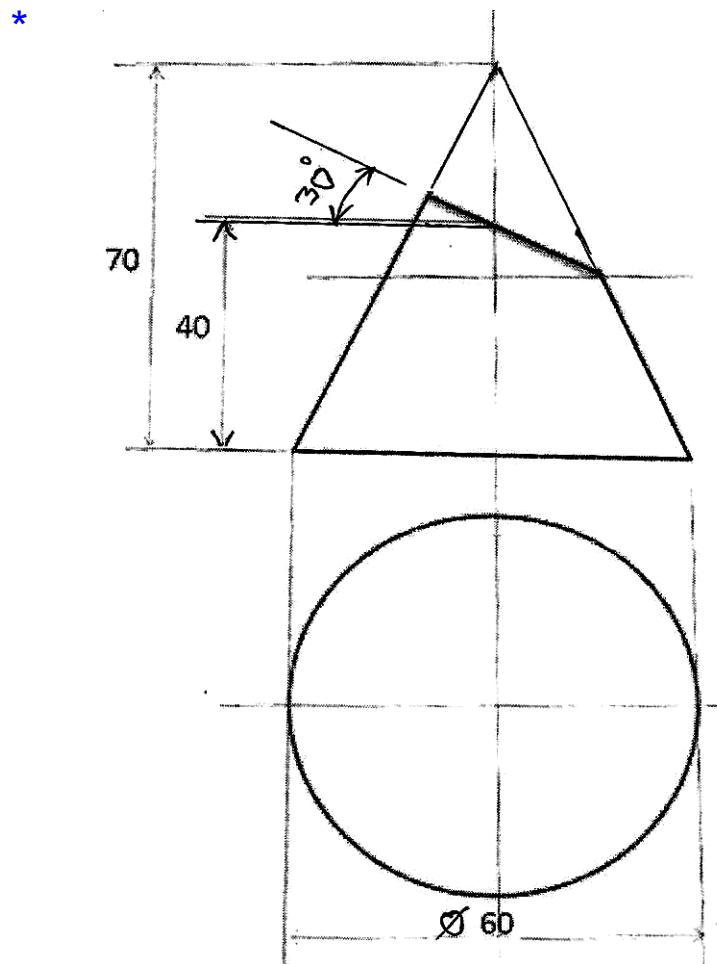
8. Draw the front view and top views of the object shown below :



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



10. Develop the lateral surface of the below truncated cone :



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