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C16–A/BM/CH/CHST/AEI/MNG/
MET/TT/IT/PCT–107

6005

BOARD DIPLOMA EXAMINATION, (C–16)
OCTOBER—2020
FIRST YEAR (COMMON) EXAMINATION

ENGINEERING DRAWING

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

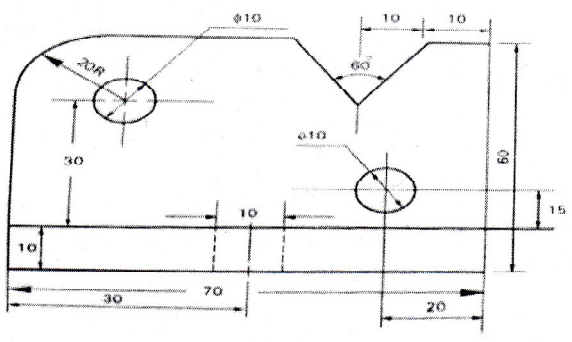
PART—A 4×5=20

Instructions **:** (1) Answer **all** questions.
(2) Each question carries **five** marks.
(3) Take suitable scale wherever required.
(4) All dimensions are in mm.

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

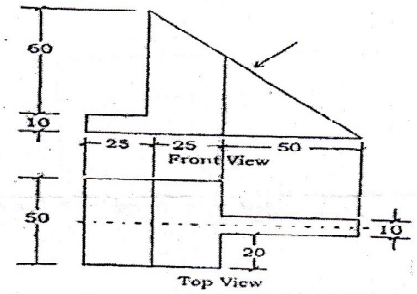
PRACTICE MAKES MEN PERFECT

2. Draw the following figure to a suitable scale and dimension according to SP : 46–1988.



3. Trace a cycloid curve through a point on the circumference of a circle of 50 mm diameter, when it rolls through a distance of 125 mm on a straight line.

4. The following figure shows front view and top view of an object. Draw an auxiliary view in the direction of arrow :



PART—B

10×4=40

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

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

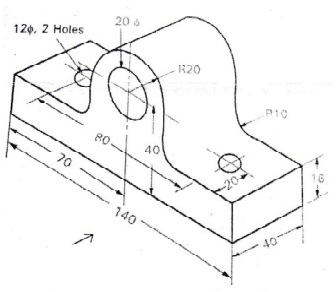
5. Draw the involute of hexagon of side 20 mm. Draw a normal and tangent to the curve at a point 60 mm from the centre of the hexagon.

6. Draw the projections of a cone of base diameter 40 mm and height 60 mm so that the cone is touching HP with one of its base points. The axis is parallel to VP and making an angle of 60° to HP.

7. Draw the following views of the machine component given in the figure :

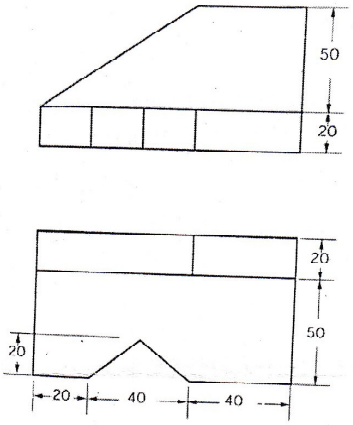
(a) Sectional front view

(b) Sectional end view



8. A cone is resting with its base on HP. It is cut by a plane which is at 45° to HP and perpendicular to the VP. The cutting plane passes through the mid-height of the cone. Draw the sectional top view and sectional side view.

9. Draw the isometric view of the component whose orthographic views are shown in the figure.



10. A hexagonal prism of base 20 mm and height 50 mm is standing vertically on ground with one of its base edge parallel to VP. It is cut by the section plane, inclined at 45° to HP perpendicular to VP and passing through one of the top corners of the prism. Draw the development of lateral part of the cut prism.

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