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C16–C/CM–107

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BOARD DIPLOMA EXAMINATION, (C–16)

SEPTEMBER/OCTOBER - 2020

DCE—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

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

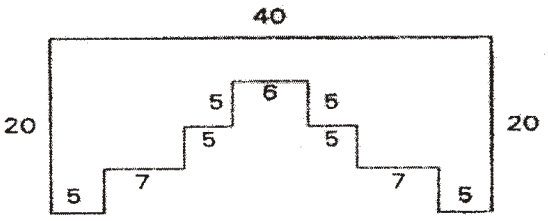
PART—A 5×4=20

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

1. Write the following using vertical capital letters of 7 mm size :

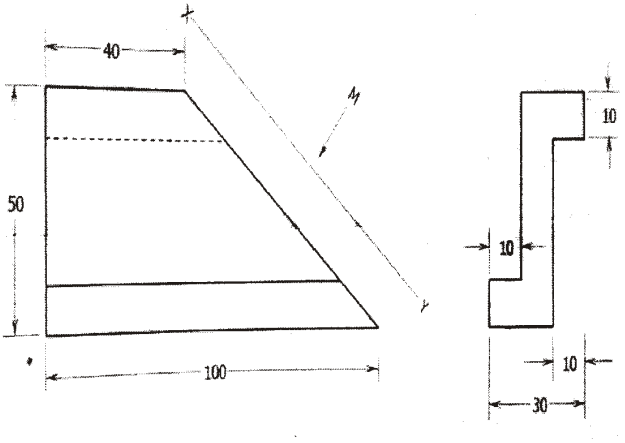
"CAPITAL REGION DEVELOPMENT AUTHORITY"

2. Redraw the following figure to full-scale and mark in parallel dimensioning as per SP 46–1988 :



3. Construct a regular hexagon of side 30 mm with two of its sides horizontal.

4. Draw the auxiliary view of the inclined surface of the following views :



PART—B

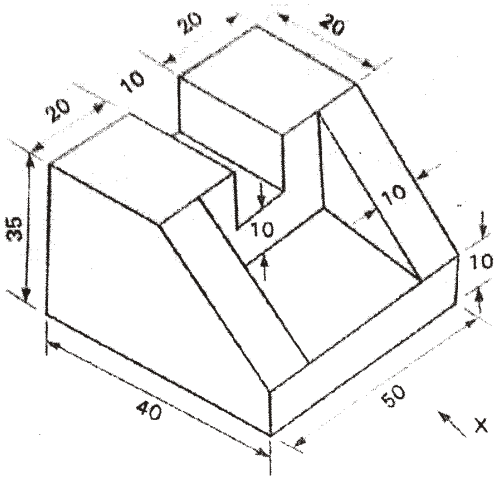
10×4=40

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

5. A circle of diameter 50 mm rolls along a line for one revolution clockwise. Draw the locus of a point on the circumference of circle which is in contact with the line.

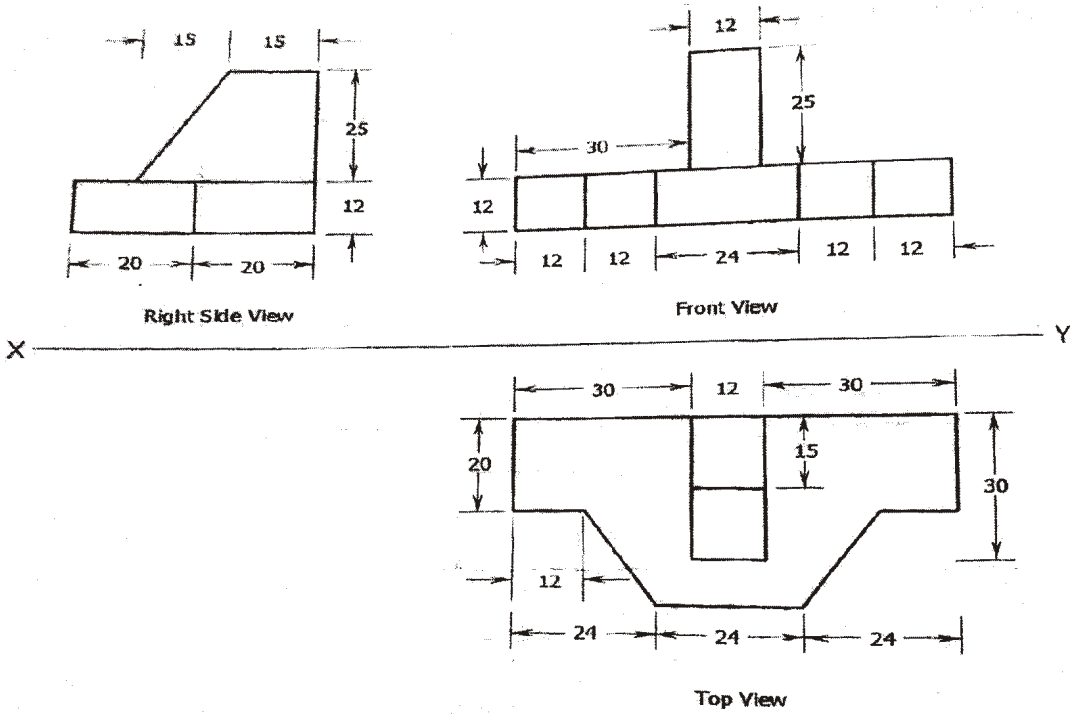
6. A square prism 40 mm base side and 60 mm long axis standing vertically on its square base 10 mm, above HP and its rectangular faces equally inclined to VP. Draw its projections.

7. An isometric view of an object is given below, draw its front view, top view and side view :



8. A hexagonal pyramid of a base side 30 mm and height 75 mm is resting on the ground with its axis vertical. It is cut by a plane inclined at 30° to the HP and passing through a point on the axis 20 mm from the vertex. Draw sectional front view, top view and true shape of the section.

9. Draw the isometric view of a casting whose orthographic views are given below :



10. A cone of base diameter 40 mm and 65 mm long axis is standing vertically on HP, it is cut by a plane which is inclined at 45° to the HP, perpendicular to VP and passing through the midpoint of the axis. Draw the development of lateral surface of the frustum.

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