4018

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BOARD DIPLOMA EXAMINATION, (C–14)
MARCH/APRIL—2017
DCE—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

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

PART—A　　　　　　　　　5×4=20

Instructions : (1) Answer **all** questions.
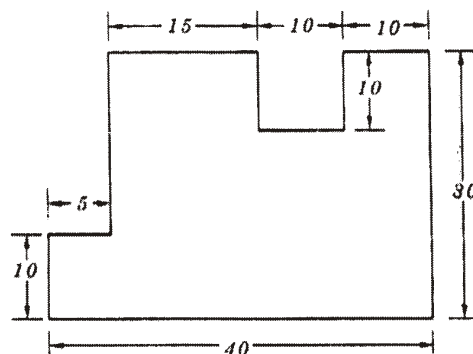
(2) Each question carries **five** marks.

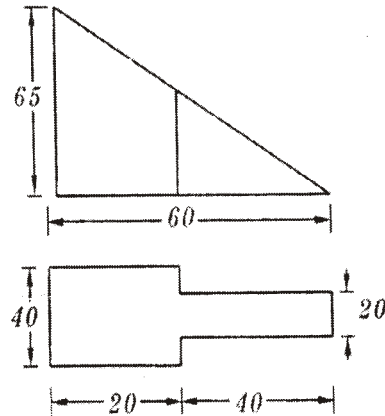(3) All dimensions are in mm.

(4) Use first angle projection.

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

"SCIENCE AND TECHNOLOGY"

2. Redraw the following figure to full size scale and dimension it according to SP 46:1988 by using aligned system :

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3. Draw a common internal tangent to two given circles of equal radii 20 mm and their centres are 70 mm apart from each other.

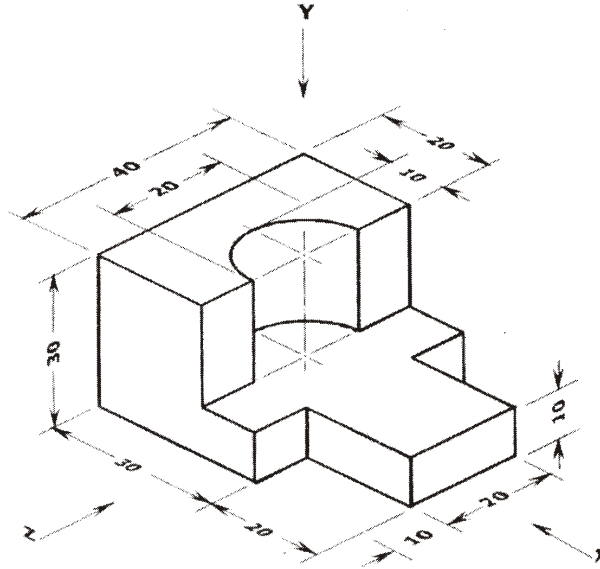**4.** Draw the auxiliary view of inclined surface of the object shown figure below :

<div align="center">

PART—B   10×4=40
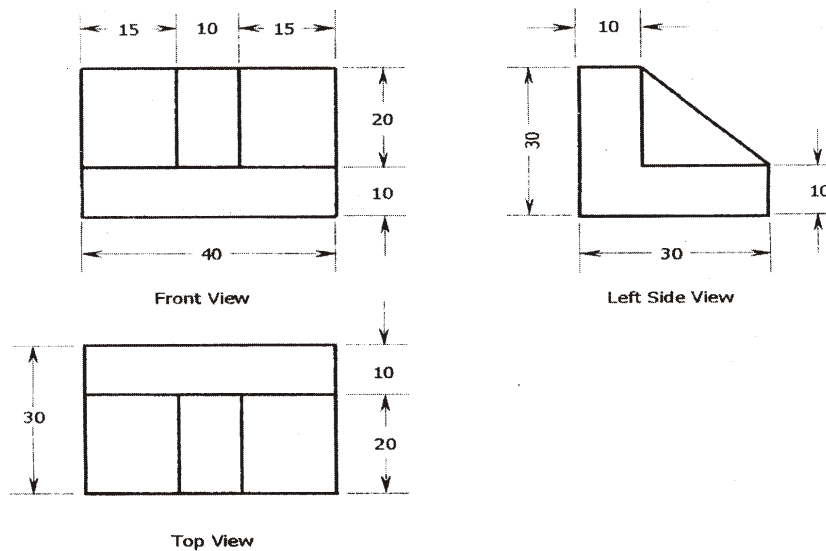
</div>

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

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

              (3) All dimensions are in mm.

              (4) Use first angle projection.

5. Draw one convolution of a cylindrical helix of diameter 50 mm and pitch 60 mm.

6. Draw the projections of a circle of 50 mm diameter having its plane vertical and inclined at 30° to VP. The centre of the circle is 40 mm above HP and 30 mm in front of VP.

7. A cone of base diameter 50 mm and height 70 mm is standing vertically on HP. It is cut by a section plane perpendicular to VP, inclined at 45° to HP, and passing through a point 40 mm from the bottom. Draw the front view and sectional top view.

8. Draw the orthographic views of the object shown in the figure below :

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

10. A hexagonal pyramid of base side 30 mm and axis 60 mm is standing on HP on its base whose one side is parallel to VP. It is cut by a section plane inclined at 60° to HP, through midpoint of axis. Draw the development of the bottom portion of the pyramid.

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