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C14–C–107/C14–CM–107

4018

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.

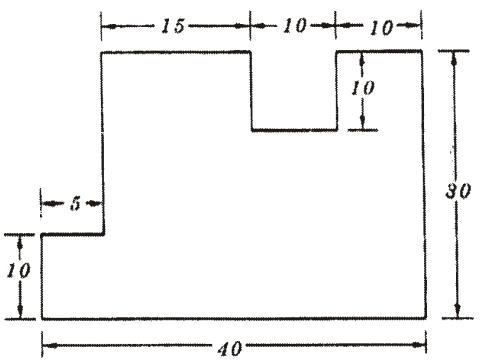
(3) All dimensions are in mm.

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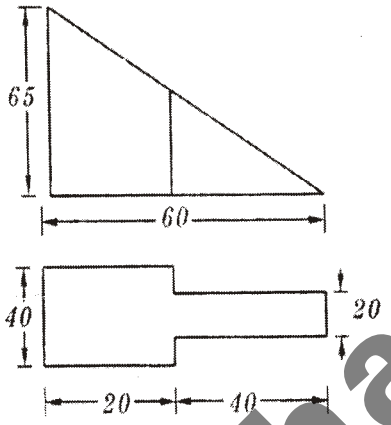
3. Draw a common internal tangent to two given circles of equal radii 20 mm and their centres are 70 mm apart from each other.

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



PART—B 10×4=40

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.

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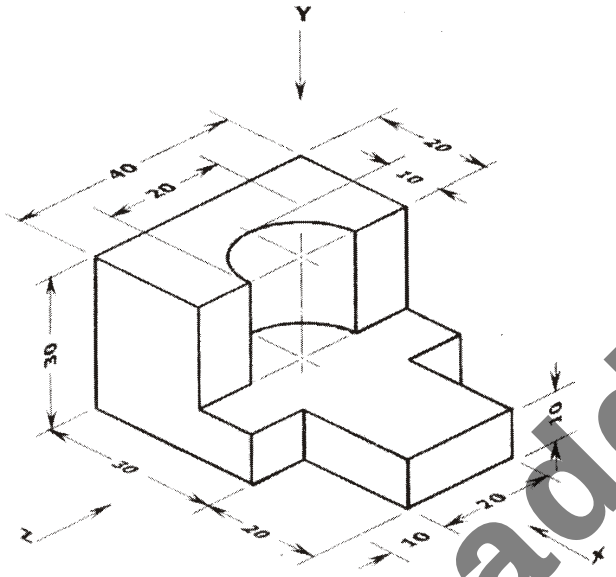
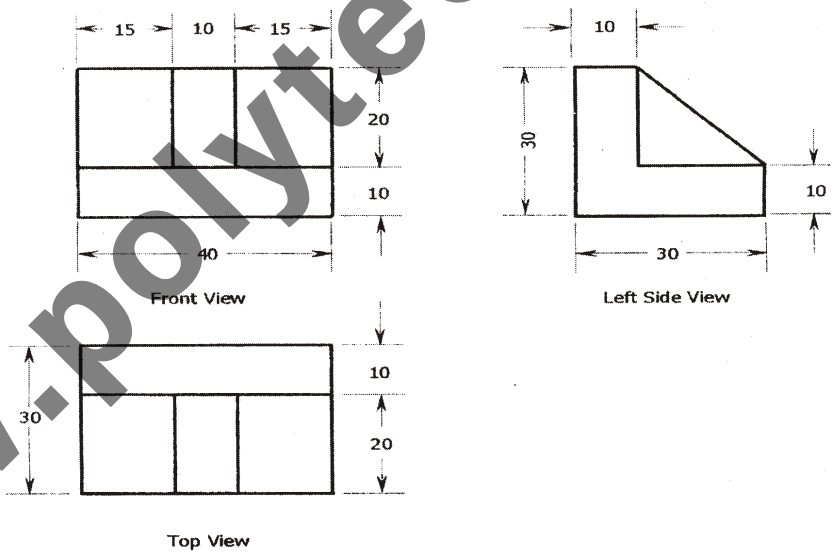
8. Draw the orthographic views of the object shown in the figure below :



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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