



C14-C-107/C14-CM-107

4018

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2016

DCE—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

Time : 3 hours ]

[ Total Marks : 60

PART—A

5×4=20

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

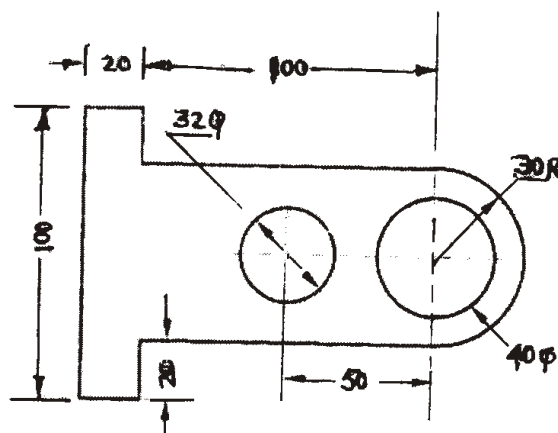
(2) Each question carries **five** marks.

(3) All dimensions are in mm.

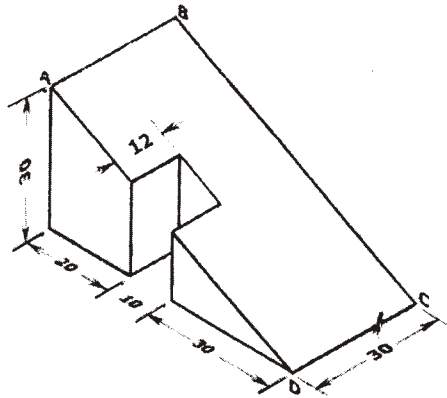
1. Print the following in single-stroke 10 mm size upright lettering :

“FUNDAMENTALS OF DRAWING”

2. Redraw the following figure and show the dimensions as per SP-46:1988 :



3. Draw the external and internal tangents to the two given circles of unequal radii of  $R_1$  20 mm,  $R_2$  15 mm and centre distance 80 mm.
4. Draw the auxiliary view of the inclined surface of the view given below :



**PART—B**

10×4=40

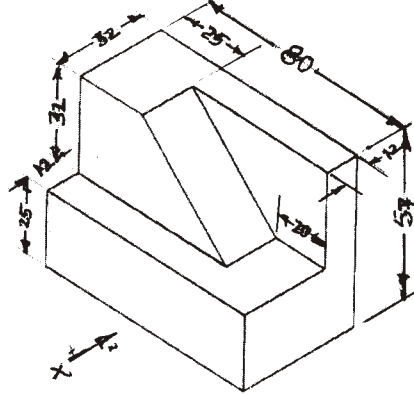
**Instructions :** (1) Answer any **four** questions.

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

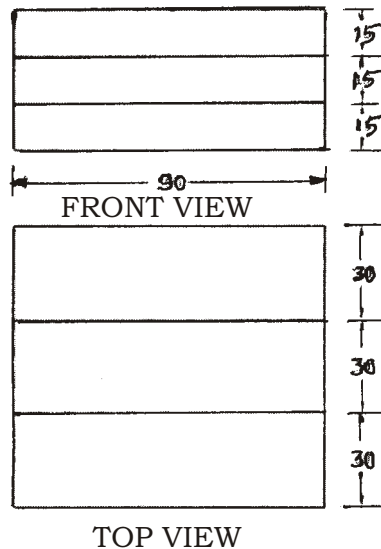
(3) All dimensions are in mm.

5. A circle of 50 mm diameter rolls along a line for one revolution clockwise. Draw the locus of a point on the circumference of a circle which is in contact with a line.
6. Draw the projections of a cone, base 30 mm diameter and axis 50 mm long resting on HP on a point of its base circle with the axis making an angle  $45^\circ$  with HP and parallel VP.

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



8. A pentagonal pyramid of base side 40 mm and height 80 mm is resting on HP on its base with one of its base sides parallel to VP. It is cut by a plane inclined at  $30^\circ$  to HP, perpendicular to VP and bisecting the axis. Draw its front view, sectional top view.
9. Draw an isometric view of the steps whose orthographic projections are given below :



3

10. A cone of base diameter 40 mm and height 60 mm is standing vertically on HP. It is cut by a plane which is inclined at  $45^\circ$  to HP, perpendicular to VP and passing through the mid-point of the axis. Develop the lateral surface of the frustum of a cone.

\*\*\*