

C16-C/CM-107

6020

BOARD DIPLOMA EXAMINATION, (C-16) MARCH/APRIL—2018

DCE—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

Time: 3 hours [Total Marks: 60

PART—A

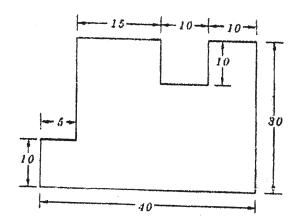
 $5 \times 4 = 20$

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

- (2) Each question carries five marks.
- (3) All dimensions are in mm.
- **1.** Write the following in single-stroke vertical lettering of size 10 mm in capital letters :

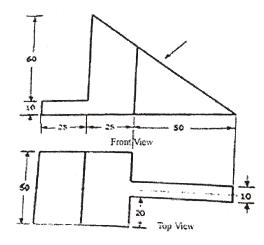
"CLEAN AND GREEN IS OUR PERFECT DREAM"

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



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- **3.** Draw a common external tangent to two circles of radii 25 mm and 20 mm. The distance between the centres of circles is 75 mm.
- **4.** Draw the auxiliary view of the object shown below :



PART—B

 $10 \times 4 = 40$

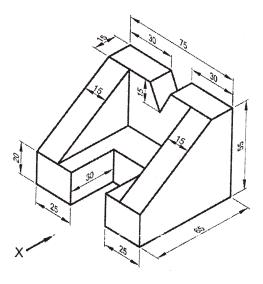
Instructions: (1) Answer any **four** questions.

- (2) Each question carries ten marks.
- (3) All dimensions are in mm.
- **5.** Draw a helix of cylinder diameter 50 mm and pitch 70 mm.
- **6.** Draw the top view and front view of a circular plane, if the surface of the plane is perpendicular to HP and inclined at 30° to VP.
- **7.** A hexagonal pyramid of base side 30 mm and axis 75 mm long is resting on its base in HP having a base side parallel to VP. It is cut by a section plane which is inclined at 30° to HP, perpendicular to VP and passing through a point on the axis at a distance of 35 mm from the vertex. Draw its sectional front view and sectional top view.

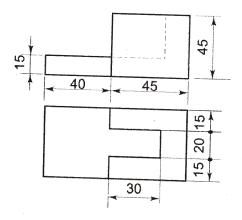
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8. Draw the front view, top view and right-side view of the given figure :



9. Draw the isometric view of the object for the views given below:



10. A right circular cone of diameter 50 mm and axis 75 mm long is resting on its base in HP. It is cut by a section plane which is perpendicular to VP, inclined at 60° to HP and passing through a point on the axis at a height of 40 mm from the base. Draw the surface development of the bottom position of truncated cone.

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