

C16-C-107/C16-CM-107

6020

OCT/NOV—2018 DCE—FIRST YEAR EXAMINATION ENGINEERING DE BOARD DIPLOMA EXAMINATION, (C-16)

Time: 3 hours]

[Total Marks: 60

PART-

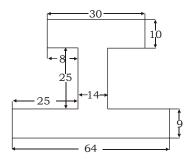
 $4 \times 5 = 20$

Instructions: (1) Answer all questions.

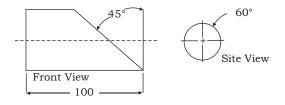
- (2) Each question carries five marks.
- (3) Answers should be brief and straight to the point and shall not exceed five simple sentences.
- 1. Print the following in single-stroke vertical lettering of 10 mm size in capital letters:

'ENGINEERS MAKE THE WORLD'

2. Redraw the following figure to the full scale by correcting the errors in dimensioning as per SP-46: 1988:



- **3.** Construct a hexagon of 40 mm side using general method.
- **4.** Draw the auxiliary view of the sloping side of the object given below:



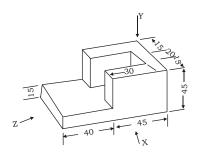
PART—B

 $10 \times 4 = 40$

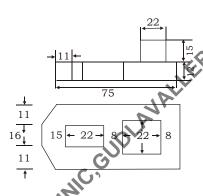
Instructions: (1) Answer any four questions.

- (2) Each question carries ten marks.
- (3) All dimensions are in mm.
- 5. Draw the involute on an equilateral triangle of side 30 mm.
- **6.** A regular hexagon of 30 mm side has its one edge on HP. The surface of the plane is perpendicular to VP and inclined at 40° to HP. Draw the projections of the plane.
- **7.** A pentagonal prism, 30 mm base side and 50 mm axis, is standing on HP on its base whose one side is perpendicular to VP. It is cut by a section plane inclined at 45° to HP, through midpoint of axis. Draw the front view and sectional top view.

8. Draw the front view and top view of the following figure:



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



10. A hexagonal prism of side 20 mm and axis 65 mm is resting with its base on HP. A cutting plane inclined at 30° to the HP perpendicular to VP and passing through the middle of the axis cuts the solid. Develop the lateral surface of the bottom portion.

