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c09-CM-107

3026

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2013

DCME—FIRST YEAR EXAMINATION

ENGINEERING DRAWING

Time : 3 hours ]

[ Total Marks : 60

**PART—A**

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

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

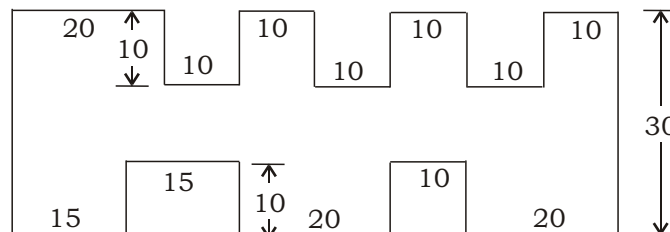
(3) All dimensions are in mm.

1. Write free-hand in single-stroke vertical capital letters with size of 12 mm height :

“BOARD OF TECHNICAL EDUCATION”

2. Draw an arc of 30 mm radius touching the two straight lines with an acute angle of 60 degrees.

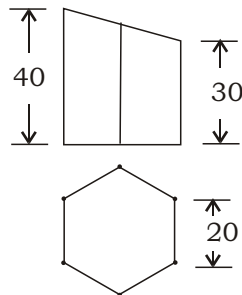
3. Draw the figure given below to a suitable scale and dimension as per chain dimensioning :



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4. Draw an auxiliary view of sloping surface given in the figure below :



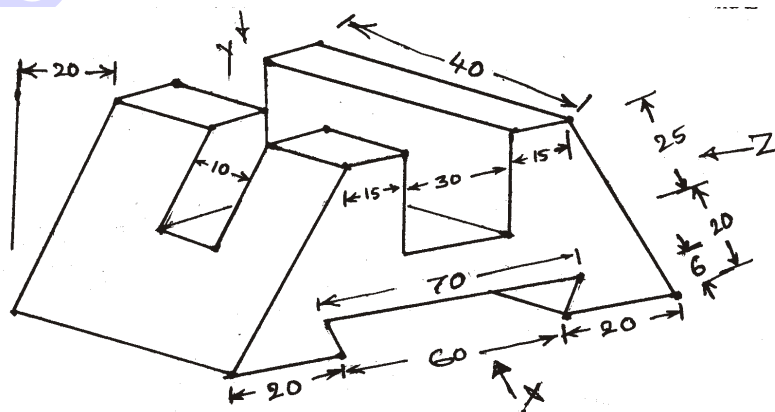
### PART—B

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

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

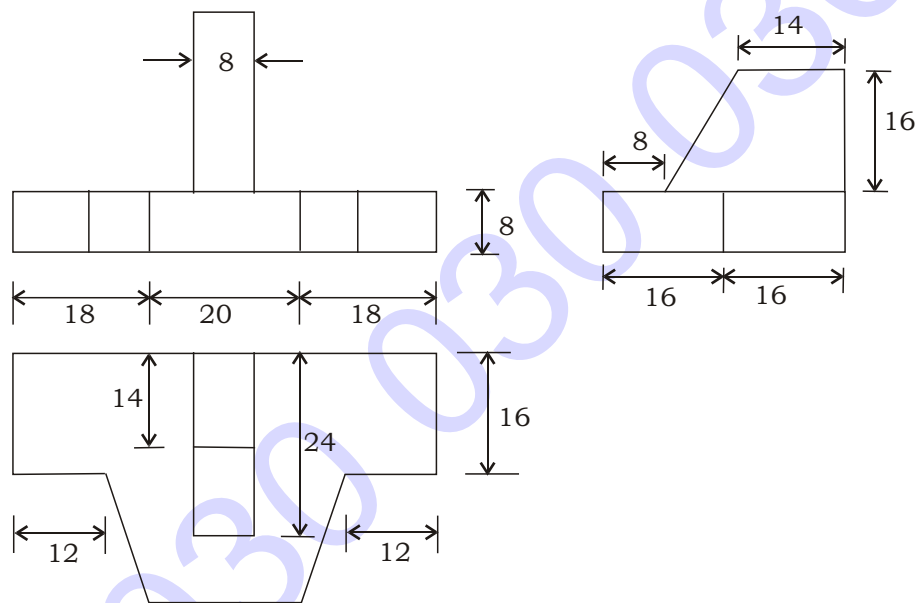
(3) All dimensions are in mm.

5. A ball thrown up in the air reaches a maximum height 45 m and travels a horizontal distance of 100 m. Trace the path of the ball.
6. A line  $AB$  of length 50 mm is parallel to VP at a distance of 30 mm. The end  $A$  is 25 mm and  $B$  is 45 mm above HP respectively. Draw its front and top views by first angle method.
7. Draw the front, top and right-side views of the block shown below viewing it in the direction of  $X$ ,  $Y$  and  $Z$  respectively :



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8. A square pyramid with 30 mm base side and axis 80 mm resting on its base with its axis perpendicular to HP and parallel to VP, and sides of base equally inclined to VP. It is cut by a section plane perpendicular to VP and parallel to HP. It is bisecting the axis. Draw the front and sectional top view.
9. The front, top and side views of an object are shown below. Draw its isometric view :



10. A regular cone base diameter 50 mm, height 75 mm is cut by a plane inclined 30 degrees at base and passing through midpoint of the axis. Draw the development of the lower portion of the cone.

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