

 $c_{09-c_{HOT}-107/c_{09-M-107/c_{09-RAC}}}$

3044

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2014

DME—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 vertical capital lettering of 12 mm size as per SP:46-1988 :

"ENVIRONMENTAL EDUCATION"

2. Redraw the following figure in progressive dimensioning :



3. Draw a tangent to a circle of 30 mm diameter from a point at a distance of 40 mm from the centre of the circle.

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4. Draw an auxiliary view for the following orthogonal views :



Instructions : (1) Answer any four questions.

- (2) Each question carries ten marks.
- (3) All dimensions are in mm.
- **5.** Construct a cycloidal curve through a point on the circumference of a circle of radius 20 mm for one complete revolution.
- **6.** A hexagonal pyramid, with side of base 25 mm and axis 60 mm long, has one of its triangular faces perpendicular to HP. Draw the projections of the pyramid, when the base side of this triangular face is in HP.
- 7. Draw the front, top and right-side views of the following object :



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- **8.** A cube of 40 mm side, rests with one of its edges on HP such that one of the faces containing that edge is inclined at 30° to HP. It is cut by a section plane, perpendicular to HP and inclined at 45° to VP, and passing through the midpoint on the axis. Draw the projections of the cube and obtain the true shape of the section.
- **9.** Draw the isometric view of the object whose orthographic views are given :



10. A cone of base 50 mm diameter and height 60 mm rests with its base on HP. A section plane perpendicular to VP and inclined at 30° to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone.

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