



C09-A-107/C09-AEI-107/C09-BM-107/C09-C-107/  
C09-CM-107/C09-CH-107/C09-CHPP-107/C09-CHPC-107/  
C09-CHOT-107/C09-CHST-107/C09-EC-107/C09-EE-107/  
C09-IT-107/C09-MET-107/C09-M-107/C09-MNG-107/  
C09-PET-107/C09-TT-107/C09-RAC-**107**

**3005**

**BOARD DIPLOMA EXAMINATION, (C-09)**  
**OCT/NOV—2017**  
**FIRST YEAR (COMMON) EXAMINATION**  
**ENGINEERING DRAWING**

*Time : 3 hours ]*

*[ Total Marks : 60*

**PART—A**

5×4=20

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

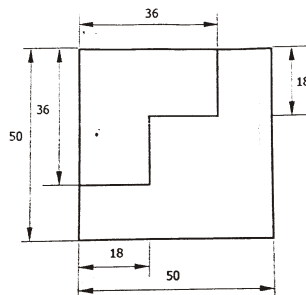
(2) Each question carries **five** marks.

(3) All dimensions are in mm.

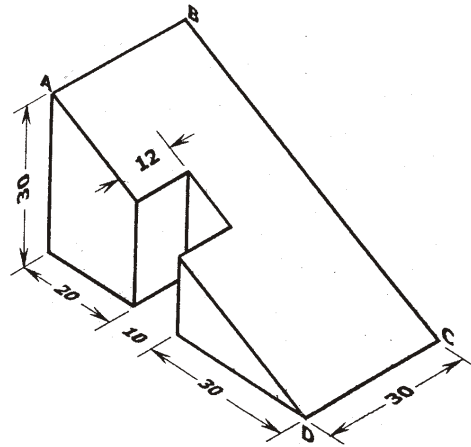
1. Print the following words in single-stroke vertical capital lettering in 12 mm size :

“TECHNICAL EDUCATION”

2. Redraw the following figure to full-size scale and dimension it properly by using chain dimensioning as per SP : 46-1988 :



- \* 3. The distance between the centers of two circles of 60 mm and 90 mm diameters is 120 mm. Draw an external common tangent to the two circles.
4. Draw the auxiliary view for the inclined surface of the following object :

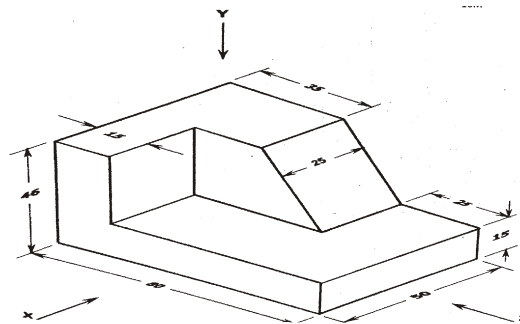


**PART—B**

10×4=40

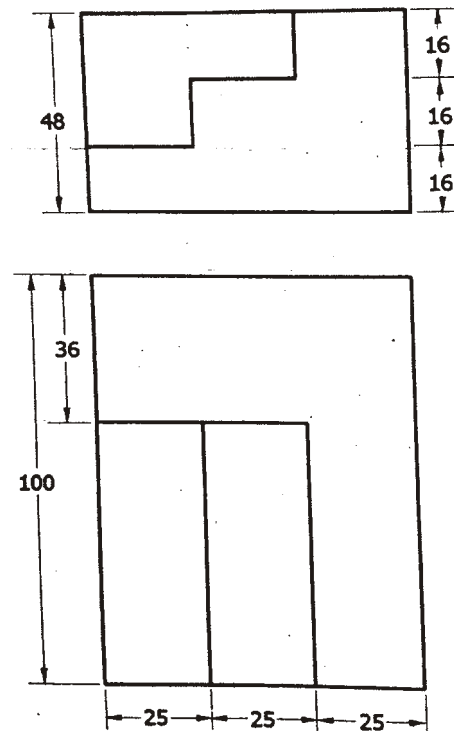
- Instructions :** (1) Answer *any four* questions.  
 (2) Each question carries **ten** marks.  
 (3) All dimensions are in mm.

5. Draw an involute curve on a circle of 40 mm diameter.
6. A 100 mm long line a parallel to and 40 mm above the HP. Its two ends are 25 mm and 50 mm in front of the VP respectively. Draw its projections and find its inclination with the VP.
7. Draw the front view, top view and right-hand side view of the object as shown in the figure below :



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8. A hexagonal pyramid of base side 30 mm and height 75 mm is resting on the ground with its axis vertical. It is cut by a plane inclined at  $30^\circ$  to the HP and passing through a point on the axis at a distance of 20 mm from the vertex. Draw the sectional front view, top view and true shape.
9. Draw the isometric view of the block whose orthographic views are given below in first-angle projection of drawing :



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

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