



C16-A/BM/CH/CHST/AEI/MNG/  
MET/TT/IT/PCT—107  
**6005**

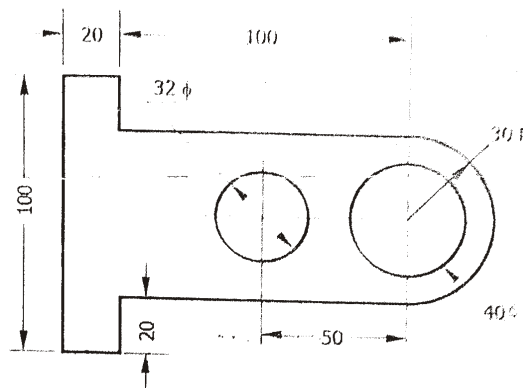
**BOARD DIPLOMA EXAMINATION, (C-16)**  
**SEPTEMBER/OCTOBER - 2020**  
**FIRST YEAR (COMMON) EXAMINATION**  
**ENGINEERING DRAWING**

**PART—A**

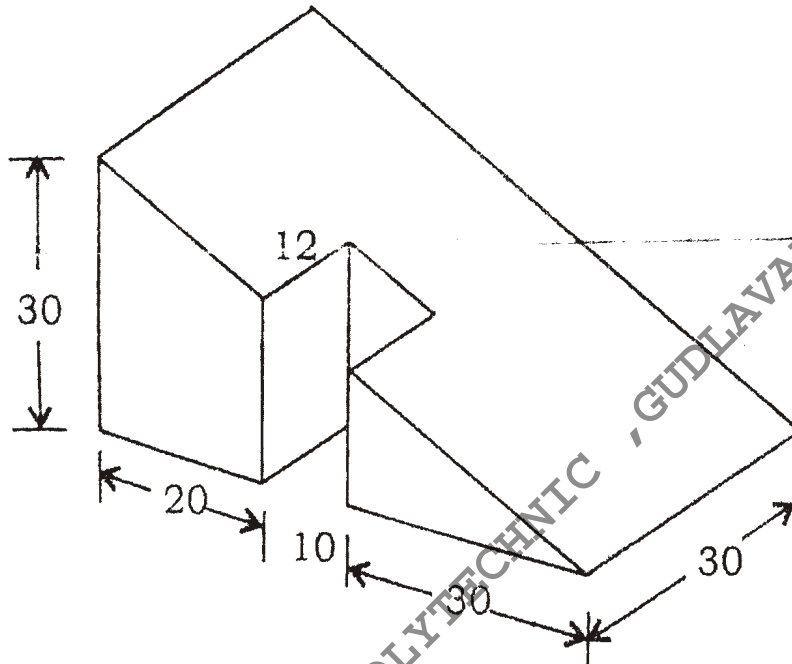
5×4=20

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

- Write the following in free hand single-stroke inclined capital letters of 12 mm height :  
“DRAWING IS UNIVERSAL LANGUAGE”
- Redraw the figure and dimension, by using aligned dimensioning system :



- \* 3. Draw a tangent to a circle of 30 mm diameter from a point at a distance of 40 mm from the center of the circle.
4. Draw the auxiliary view of the inclined surface for the view given in the figure below :



Part—b

10×4=40

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

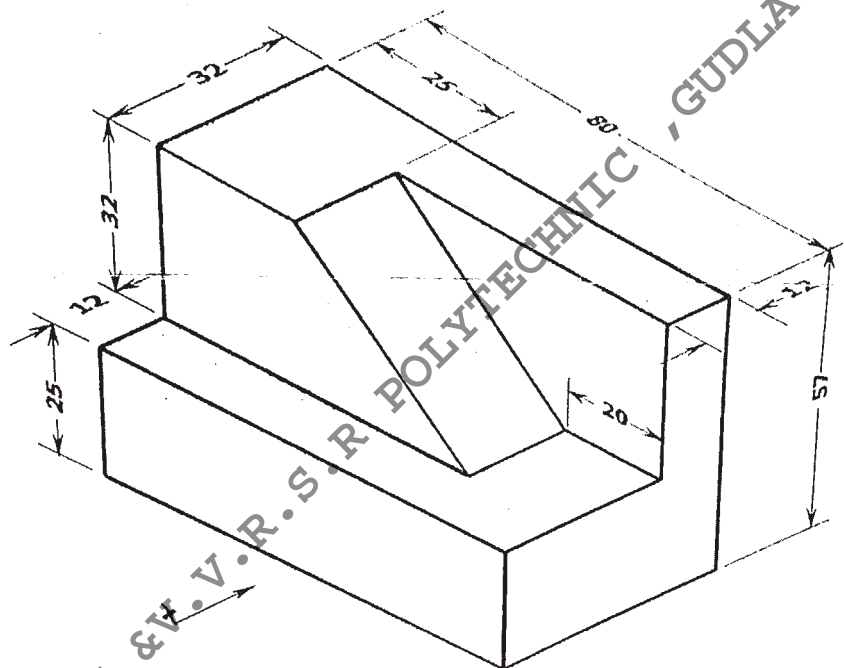
(2) Each question carries **ten** marks.

(3) All dimensions are in mm.

- \* 5. A circle of 50 mm diameter rolls along a line for one revolution clockwise. Draw the locus of a point on the circumference of circle which is in contact with the line.

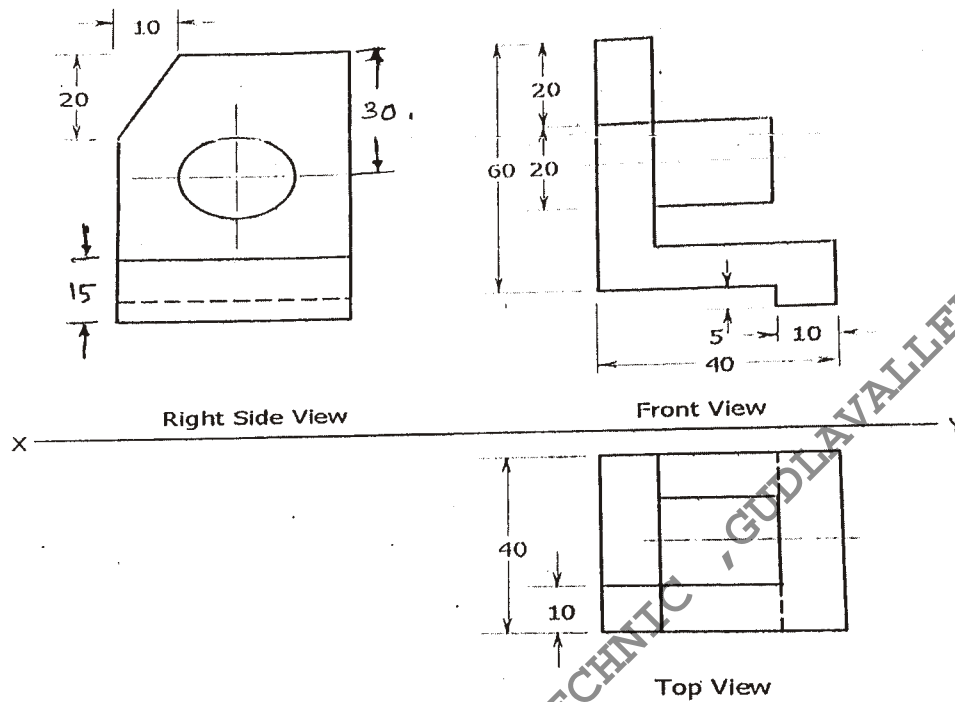
- \* 6. A pentagonal prism, side of base 25 mm and axis 50 mm long rests on HP with one of its edges such that the base containing that edge makes an angle of  $30^\circ$  with HP and its axis is parallel to VP. Draw its projections.

7. Draw the front view, top view and right side view of the block shown in the figure below in first angle projection :



- \* 8. A pentagonal pyramid of base side 40 mm and height 80 mm is resting on HP on its base with one of its base side parallel to VP. It is cut by a plane inclined at  $30^\circ$  to HP; perpendicular to VP is bisecting the axis. Draw its front view, sectional top view and true shape of the section.

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



10. A square pyramid of side of base 40 mm and height 60 mm is standing vertically on its base with one of the base edges parallel to VP. It is cut by a horizontal plane at height of 30 mm from the base. Develop the lateral surface of the frustum.

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