6005

BOARD DIPLOMA EXAMINATION, (C-16)

JANUARY/FEBRUARY—2022

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) Take suitable scale wherever required.

(4) All dimensions are in mm.

1. Write the following in 10 mm size single-stroke vertical capital lettering as per SP : 46 – 1988 "KNOWLEDGE IS DIVINE"

2. Redraw and dimension the following figure in unidirectional dimensioning :
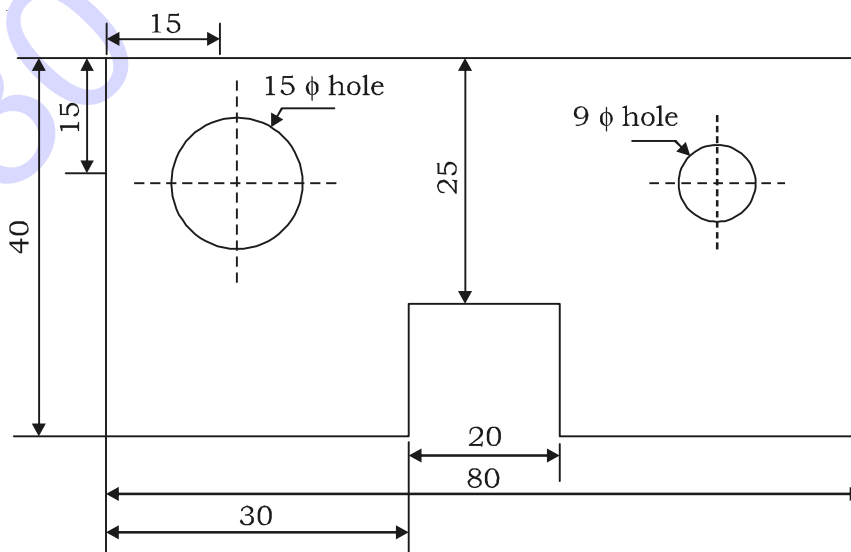
3. Construct a regular pentagon of side 30 mm.

4. Draw the auxiliary view of the inclined surface of the object.
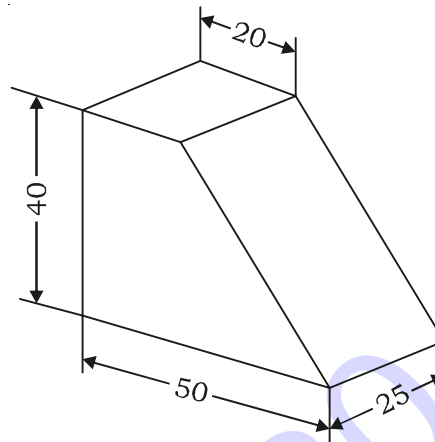
PART—B   10×4=40

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

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

(3) All dimensions are in mm.

5. Construct a cycloid traced by a point on the circumference of a circle of radius 30 mm. Draw a normal and tangent to a curve at any point on it.

6. A line PQ of 70 mm is 30° and 40° inclinded to HP and VP respectively. One of its end P is 10 mm above HP and 15mm infront of VP. Draw its projections.

7. A cone of base diameter 50 mm and axis 65 mm long is resting on its base on HP and axis parallel to VP. It is cut by a section plane perpendicular to VP, inclinded at 45° to HP and cutting the axis at a point 30 mm from the apex. Draw its front view, sectional top view and true shape of the section.

8. Draw front view, top view and right side view of the given object.
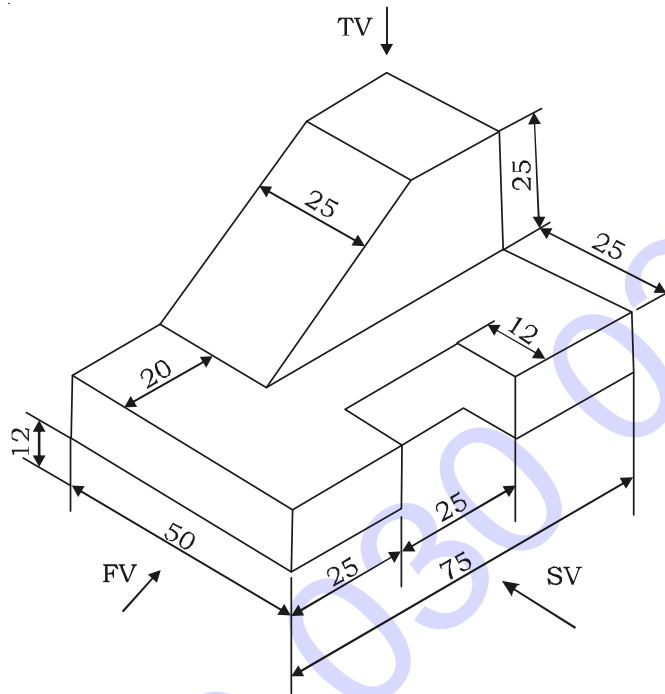
9. Draw the isometric view of the given block. Front view and right side view are given below :
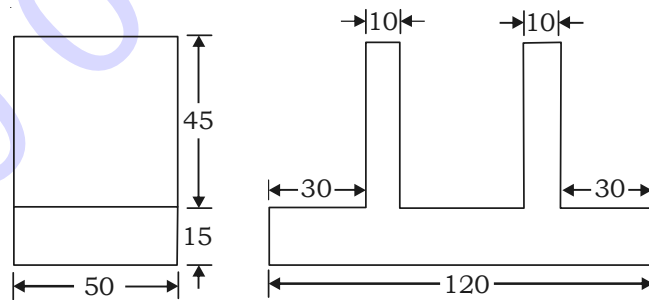
10. A pentagonal pyramid of base 30 mm and axis 70 mm is standing vertically on HP, one of its side of base is perpendicular to VP. It is cut by a plane which is inclined at 45° to HP and perpendicular to VP, passing through the axis at a distance of 20 mm from the apex. Draw the development of lateral surfaces of the truncated pentagonal pyramid.

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