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C16–A/CH/CHST/C/CM/EC/EE/M/AEI/
FW/MNG/MET/IT/TT/PKG—107

5005

BOARD DIPLOMA EXAMINATION, (C–16)

MARCH/APRIL—2018

FIRST YEAR (COMMON) EXAMINATION

ENGINEERING DRAWING

Time : 3 hours] [*Total Marks* : 60

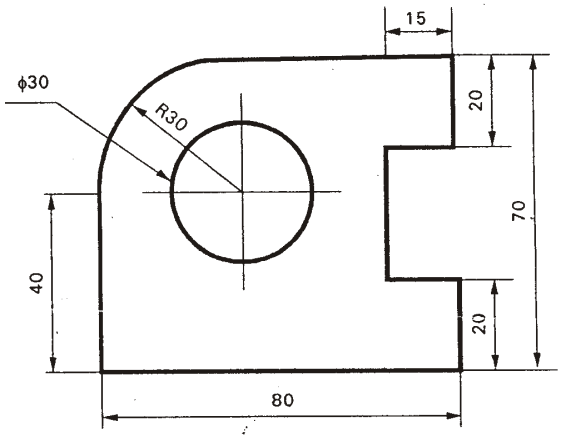
PART—A 5×4=20

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

1. Print the following title in simple vertical single-stroke capitals by free-hand lettering of 10 mm size :

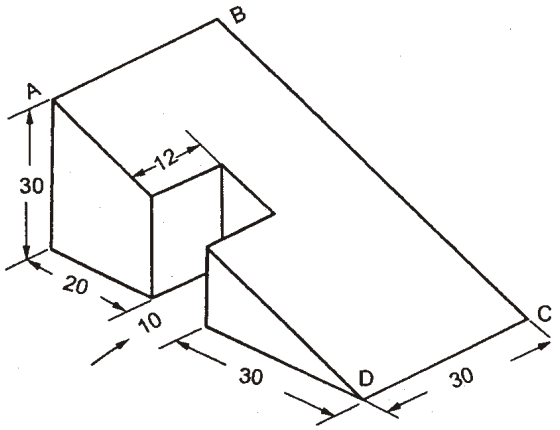
GEOMETRICAL CONSTRUCTIONS

2. Redraw the following figure in chain dimension :



3. Inscribe a regular pentagon in a circle of 60 mm diameter.

4. Draw the auxiliary view of the inclined surface of the object shown 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. Draw the helix of pitch 60 mm on a cylinder of diameter 50 mm and also draw the development of helix.

6. Draw the projection of the following points on a common reference line *XY* :

(a) Point *P*, 35 mm behind the VP and 20 mm below the HP

(b) Point *Q*, 40 mm in front of the VP and 30 mm above the HP

(c) Point *R*, 50 mm behind the VP and 15 mm above the HP

(d) Point *S*, 40 mm below the HP and in the VP

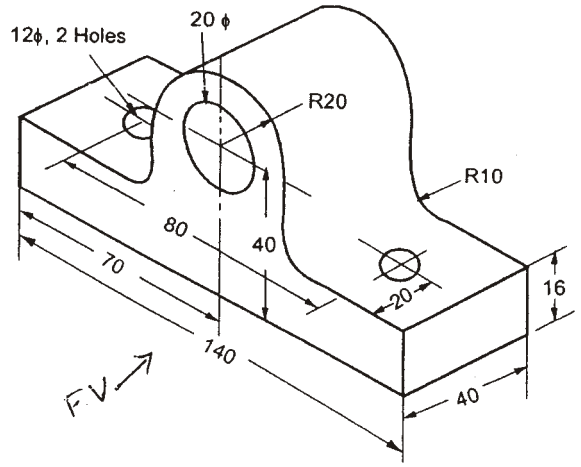
(e) Point *T*, 30 mm in front of the VP and 50 mm below the HP

7. Draw the following views of the machine component given below :

(a) Sectional Front view

(b) Sectional right side view

(c) Top view

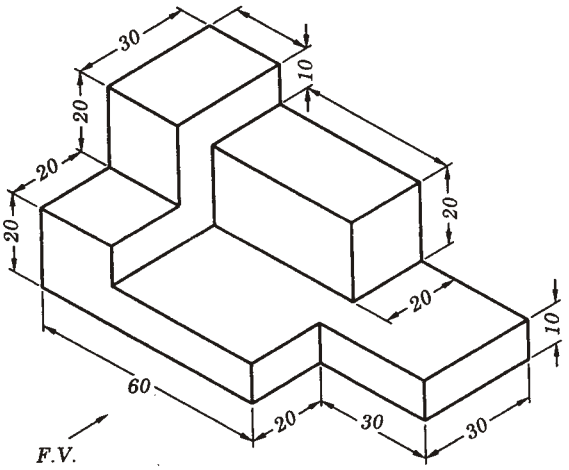


8. Draw the orthographic views of the object shown below :

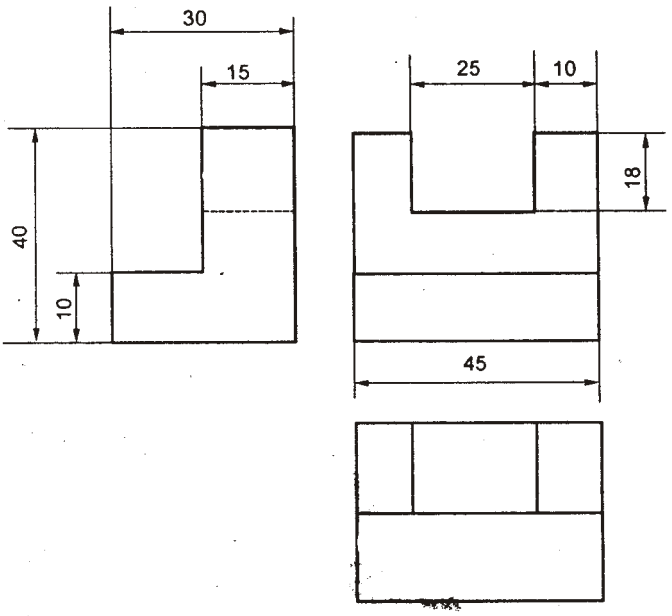
(a) Front view

(b) Top view

(c) Right side view



9. Draw the isometric view of the object, whose orthographic views are given in the figure below :



10. A cylinder of diameter of base 40 mm and height 50 mm is standing on its base on HP. A cutting plane inclined at 45° to the axis of the cylinder, passes through the left extreme point of the top base. Develop the lateral surface of the truncated cylinder.

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