

Code : 100102/100202

B.Tech 2nd Semester Special Exam., 2020

(New Course)

ENGINEERING GRAPHICS AND DESIGN

Time : 3 hours

Full Marks : 70

Instructions :

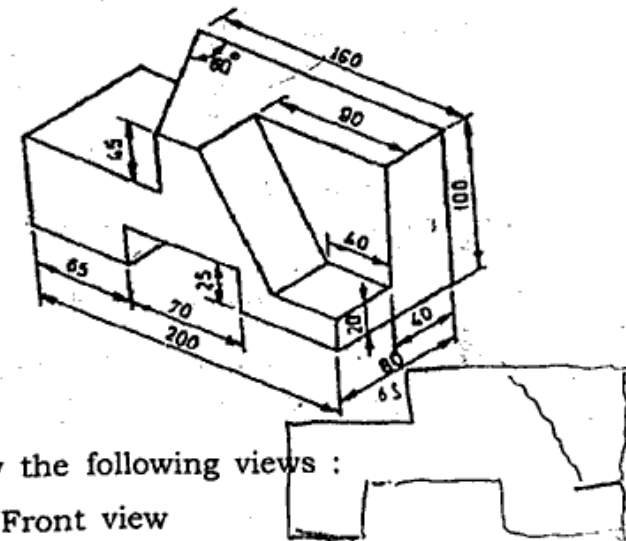
- (i) All questions carry equal marks.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Answer any seven questions :

- (a) Name different types of drawing instruments.
- (b) How will you test the set square?
- (c) What are the standard sizes of drawing sheet according to ISI?
- (d) What do you mean by composition of letters?
- (e) What do you understand by uniformity in lettering?

- (f) What do you mean by mechanical lettering devices?
- (g) What do you mean by the term 'notation of dimensioning'?
- (h) What are the aligned systems of dimensioning?
- (i) What is the difference between a parallelogram and a rhombus?
- (j) What is the difference between a regular and an irregular polygon?

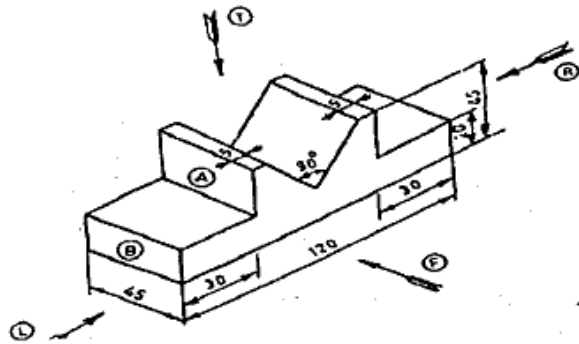
2. The following figure shows isometric view of an object :



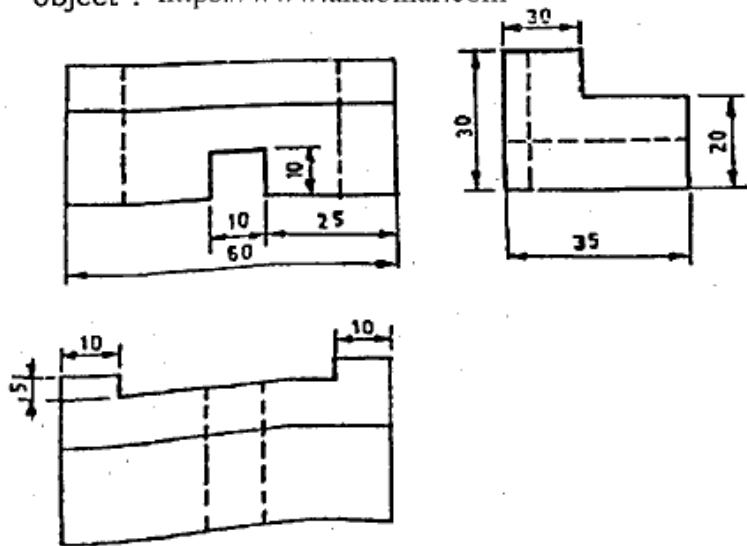
Draw the following views :

- (a) Front view
- (b) End view
- (c) Top view

3. Draw the front view, top view, bottom view, left-side view and right-side view of the given object by first angle projection method :



4. The following figures show the top, front and side views of an object. Draw the isometric view of the object : <https://www.akubihar.com>



5. A hexagonal pyramid, side of base 25 mm and axis 50 mm long, is resting on an edge of its base on the HP with its axis inclined at 30° to HP and parallel to VP. Draw its projections.
6. A square pyramid of 25 mm side of base and 60 mm height is resting on its base. A section plane is making an angle 60° with the HP and cutting its axis at a height of 40 mm from the base. Develop the truncated pyramid.
7. Draw the top view and the front view of a cube of 40 mm edge which is resting on horizontal plane with one of its faces inclined at 30° to the VP and perpendicular to the HP.
8. A cylinder of 25 mm diameter and 45 mm long is resting on its circular rim with its axis inclined at 45° to the VP and parallel to the HP. Draw the projections.
9. A right circular cylinder of 30 mm diameter and 35 mm height of axis is cut by a section plane inclined at 30° to HP and passes 18 mm from base along the axis. Draw the development of the truncated cylinder.

