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Name of Examination : **Summer 2021** - (Preview)

Course Code & Course Name : **ME151U - Engineering Graphics and Drafting**

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Maximum Marks : **60**

Duration : **3 Hrs**

[Edit](#) [Print](#) [View Answer Key](#) [Close](#) **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

- 1) Solve any two sub-question:
 - a)) A line AB has its end A 20 mm above HP and 25 mm in front of VP. The other end B is 45 mm above HP and 55 mm in front of VP. The distance between the end projectors is 60 mm. Draw its projections. Also find the true length and true inclinations of the line with HP and VP. [6]
 - b)) A line PQ 85 mm long has its end P 10 mm above HP and 15 mm in front of VP. The top view and front view of line PQ are 75 mm and 80 mm respectively. Draw its projections. Also determine the true and apparent inclinations of the line. [6]
 - c)) A pentagonal pyramid with base edges 25mm and axis 50mm, is resting on its base with an edge of its base parallel to VP and near it. It is cut by section plane perpendicular to VP, inclined at 60° to HP, and passing through a point on the axis, 15mm above the base. Draw its front view, top view and one-piece development of the lateral surface of pyramid. [6]
- 2) Solve all sub-questions: -
 - a)) A thin circular plate of 50mm diameter is resting on point A of its rim with the surface of the plate inclined at 45° to the HP and the diameter through A inclined at 30° to VP. Draw the projections of the plate in third angle method of projection. [6]
 - b)) The top view of a square lamina of side 60mm is a rectangle of sides 60mm x 20mm, with the longer side of the rectangle being parallel to the XY line in both, the front view as well as top view. Draw the front view and top view of the lamina. [6]
- 3) A pentagonal pyramid with 40mm edges of the base and the axis 75mm long, has one of the corners of its base on HP with the triangular face opposite to it parallel to HP. Draw the projections of the pyramid if the top view of its axis is perpendicular to VP. [12]
- 4) Solve any one sub-question:

b)) Draw the front view in the direction of X, sectional top view and sectional left hand side view of the object shown in figure 4.b using third angle method of projection. [12]

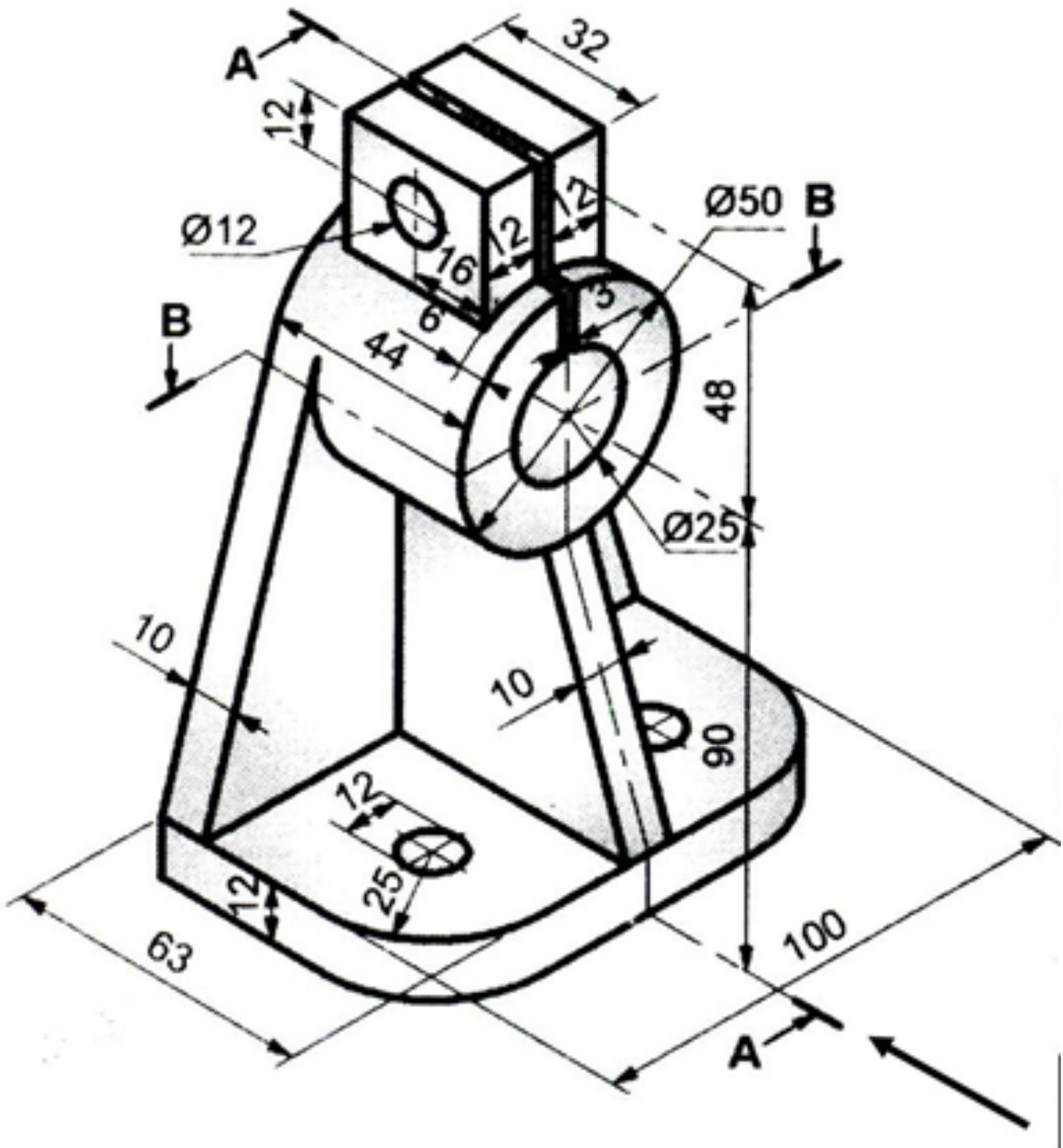


Fig.4.b

- 5) Draw an isometric view of the object shown in fig.5

[12]

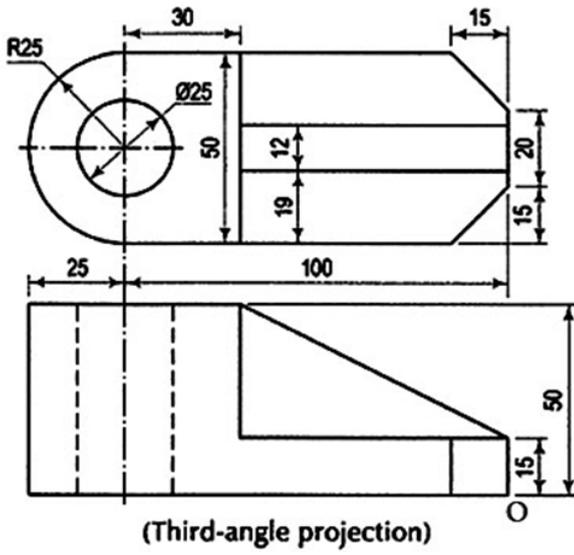


Fig.5.

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