SLOT: B1+TB1

REG.NO.:

VIT
Vellore Institute of Technology

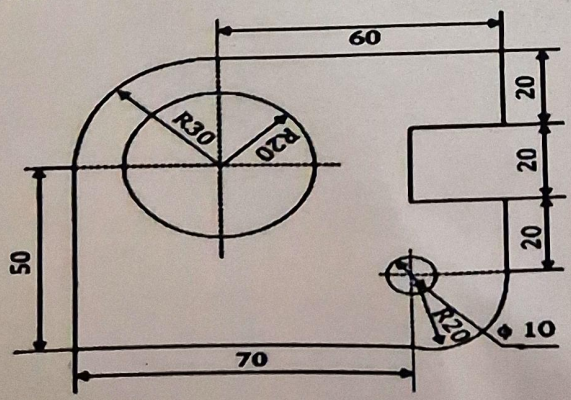
SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST (CAT) -II
FALL SEMESTER 2025-2026

Programme Name & Branch	**: B. Tech & SELECT, SCORE, SENSE**
Course Code	**: BAEEE101**
Course Name	**: BASIC ENGINEERING (Close Book Test Examination)**
Faculty Name(s)	**: Dr. Raghuraman D R S, Dr. Pandivelan C, Dr. Akash Mohanty, Dr. Mohan C.G, Dr. Senthur Prabu S, Dr. Jeyapandiarajan P, Dr. Senthil Kumaran S, Dr. Srinivasan Narayanan, Dr. Ashish Alex Sam**
Class Number(s)	**:VL2025260106306, 6308, 6310, 6731, 6716, 6277, 6814, 6816, 6817**
Date of Examination	**: 06-10-2025**
Exam Duration	**: 90 minutes** **Maximum Marks: 50**

General instruction(s):

- Answer All Questions
- All dimensions of figures provided in the questions are in millimeters (mm)
- All drawings must be executed neatly, using appropriate grades of pencils for different line types.
- Lettering, Numbering and Dimensioning must be done as per the Bureau of Indian standards.
- Orthographic projections must be drawn in landscape orientation within the answer booklet.
- Plan the layout before drawing to ensure adequate space for all required views, including the side view where applicable.
- M - Max mark; CO – Course Outcome; BL – Blooms Taxonomy Level (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)
- **Course Outcomes Statements:**

CO 3: Apply BIS standards to create basic 2D and 3D representations of engineering components.
CO 4: Explain the fundamental principles and applications of manufacturing processes, energy conversion systems, and mechanical automation technologies.

Q. No	Question	M	CO	BL
1.	Redraw the given figure and dimension as per BIS standards. 	10	CO 3	3

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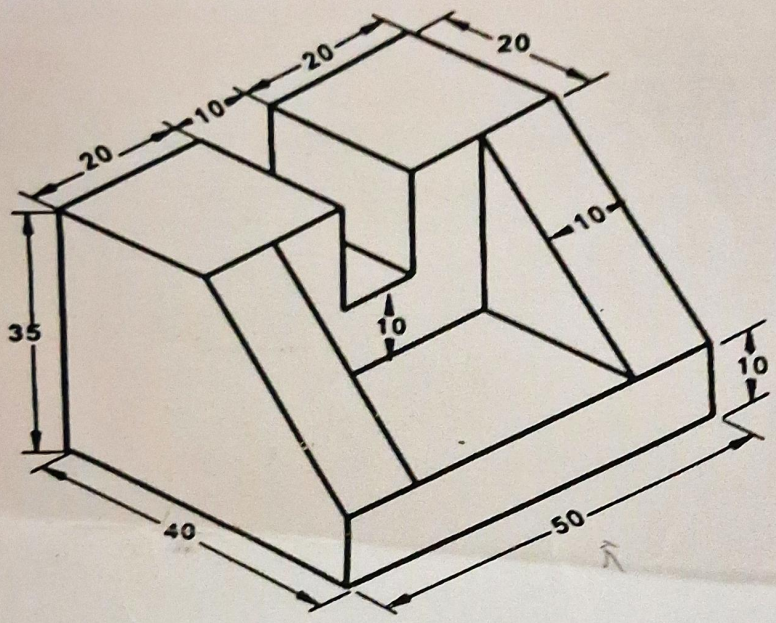
2.	Draw the orthographic views based on the specified isometric view, considering the front view orientation indicated by an arrow. 	10	CO 3	3
3.	A hexagonal pyramid with a base side of 25 mm and an axis height of 60 mm is resting on its base on the horizontal plane (H.P). One of its base edges is inclined at 45° to the vertical plane (V.P). The axis of the pyramid is perpendicular to H.P and parallel to V.P. Draw the top view and front view of the pyramid using standard projection methods.	10	CO 3	3
4.	Draw the isometric view of a cone having base diameter 50 mm and height 75 mm, resting on its base on HP.	10	CO 3	3
5.	Explain the extrusion manufacturing process with neat sketches.	10	CO 4	4

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