

**SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST (CAT) -II
FALL SEMESTER 2026-2027**

Programme Name & Branch	: B. Tech & Mechanical
Course Code	: BAEEE101
Course Name	: Basic Engineering (Closed Book Exam)
Faculty Name(s)	: Dr. M. Natarajan, Dr. Jambeswar Sahu, Dr. Ashirbad Swain
Class Number(s)	: 5308, 5298, 5290
Date of Examination	: 29-09-2026 Time: 11.00 am to 12.30 pm
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)**
- **Lettering, Numbering, and Dimensioning must be done as per the Bureau of Indian Standards (BIS).**
- **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 – Analyze, 5 – Evaluate, 6 – Create)**

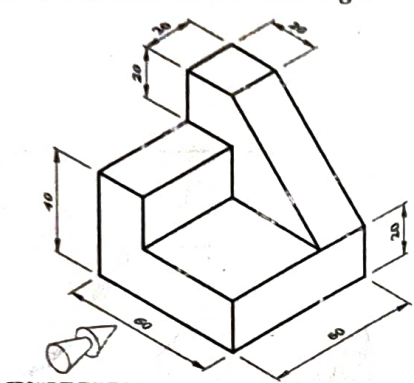
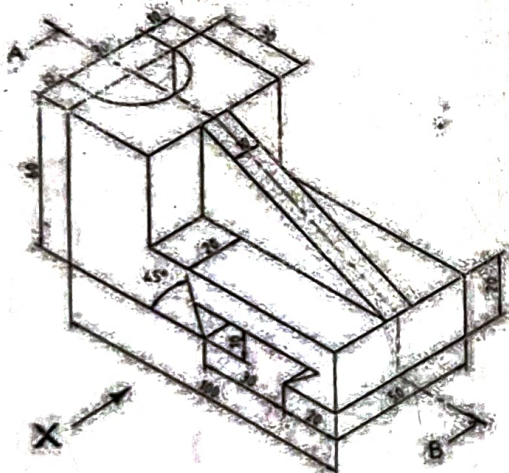
Course Outcomes Statements:

CO. 3: Apply BIS standards to create basic 2D and 3D representations of engineering components.

Q. No	Question	M	CO	BL
1.	List the errors in the dimensioning and redraw the given 2D image with correct dimensioning as per BIS standard.	10	03	03



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2.	Draw the orthographic projections (Front View, Top View, and left-hand Side View) of the given isometric figure to full scale. Show all visible and hidden edges.  FRONT ELEVATION	10	03	03
3.	Draw the orthographic projections (Front View, Top View, and left-hand side view) of the given isometric figure to full scale. Show all visible and hidden edges. 	10	03	03
4.	A hexagonal pyramid of base side 40 mm and axis length 70 mm rests on HP with one of its base edge is 35° inclined to the VP. Draw front and top side view projections and show all visible and hidden edges.	10	03	03
5.	A Pentagonal prism of base side 40 mm and height 70 mm rests on its base on the VP with one base edge parallel to the HP. Draw front and top side view projections and show all visible and hidden edges.	10	03	03

