



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

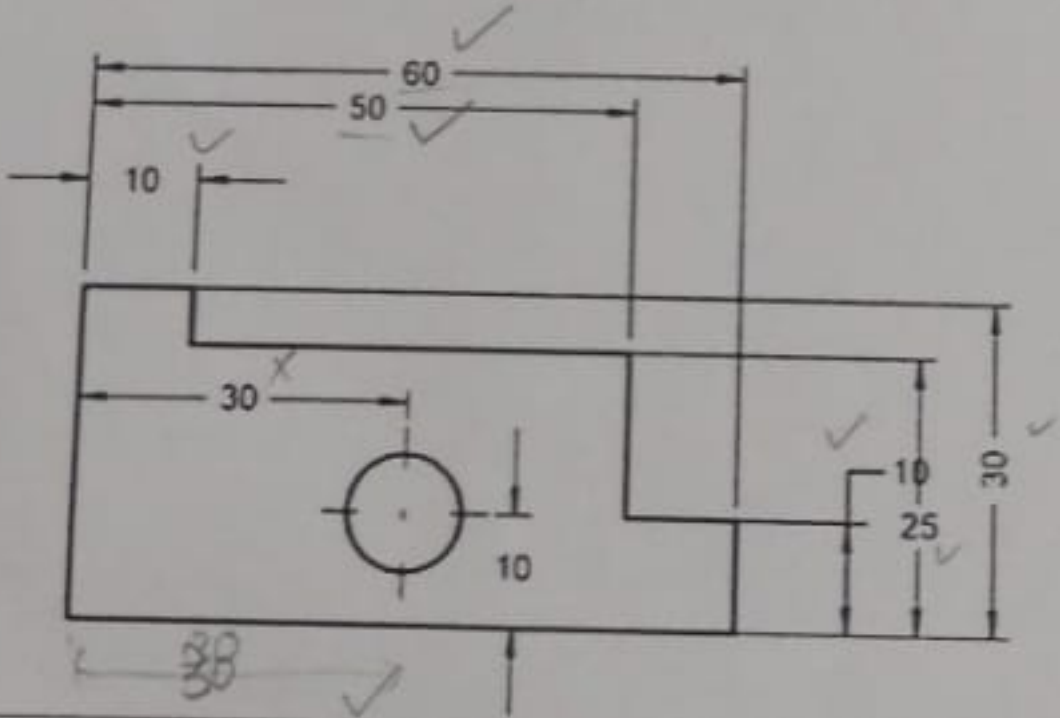
Programme Name & Branch	: B Tech
Course Code	: BAEEE101
Course Name	: BASIC ENGINEERING [CLOSED BOOK EXAM]
Faculty Name(s)	: Dr Velu M; Dr Ravi K; Dr Senthilkumar P; Dr Boopathi M; Dr Edwin Sudhagar P; Dr Nishant Tiwari ; Edison G
Class Number(s)	: 6824; 7150; 6826; 6276; 6309; 6282; 6307
Date of Examination	: 6 th October 2025 (Monday, Session 1)
Exam Duration	: 90 minutes
Maximum Marks: 50	

General instruction(s):

- Answer All Questions
- 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.	Consider the incorrectly dimensioned object shown. There are 5 types of dimensioning mistakes. List them and then dimension the object correctly as per BIS standards. 	10	03	02
2.	Draw Orthographic projections (Front view, Top View and Righthand side view) of the Figure-1, in First angle projection method.	10	03	03

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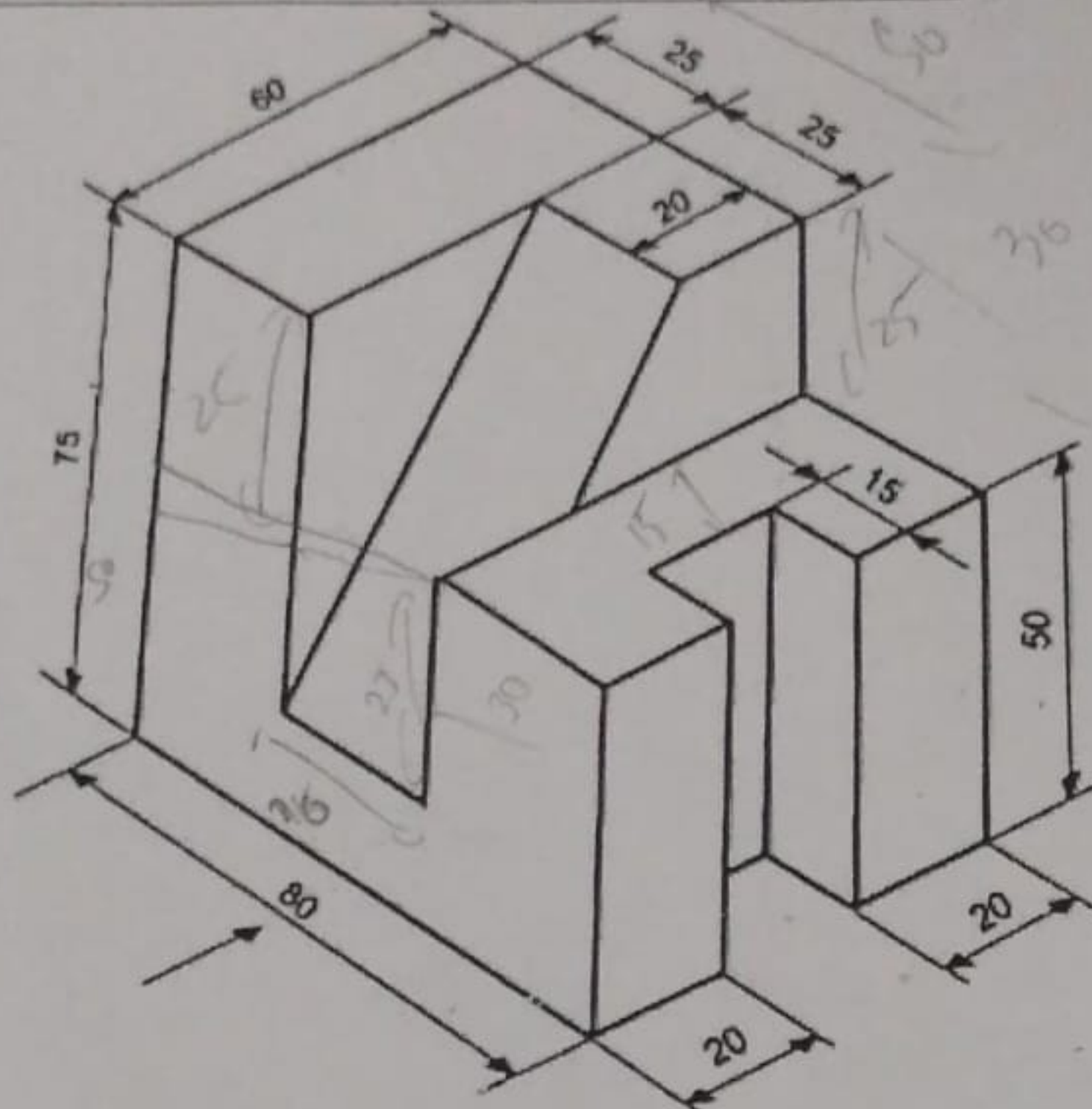


Figure-1

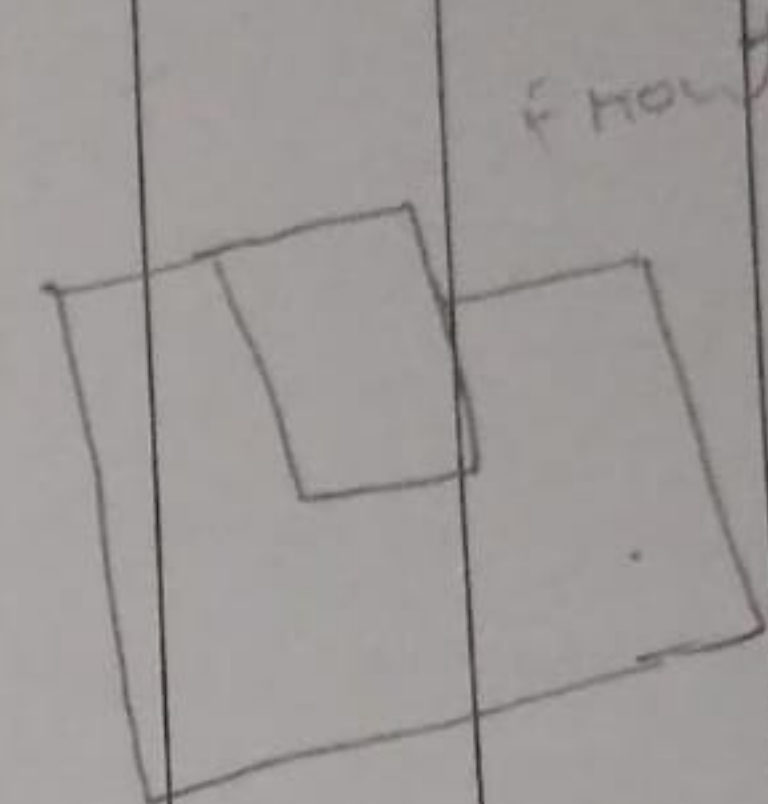


Figure-1				
3.	A hexagonal prism of base side 25 mm and height 65 mm is resting on HP on one of its rectangular faces with its axis parallel to HP and perpendicular to VP. Draw its projections.	10	03	03
4.	Draw the isometric view of a cone having base diameter 60 mm resting on the HP and height 85 mm.	10	03	03
5.	(a) List the casting defects and suggest how these defects could be avoided 5 Marks	10	04	03
	(b) Explain schematically shielded metal arc welding (SMAW) process 5 Marks			