

5973



VIT®

Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

SLOT: A1+TA1

REG.NO.: 26BITC

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

|                                    |   |                                                                                                                                                                                             |
|------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Programme Name &amp; Branch</b> | : | <b>B.Tech &amp; Mechanical Engineering</b>                                                                                                                                                  |
| <b>Course Code</b>                 | : | <b>BAEEE101</b>                                                                                                                                                                             |
| <b>Course Name</b>                 | : | <b>Basic Engineering [Closed Book Exam]</b>                                                                                                                                                 |
| <b>Faculty Name(s)</b>             | : | <b>NATARAJAN M, SRIDHARAN K, G EDISON, SENTHIL KUMAR M, LAKSHMINARAYANAN V, VELU M, PRAKASH R, ASHIRBAD SWAIN, ANUJ KUMAR, MOHAN C.G, JEYAPANDIARAJAN P, JAMBESWAR SAHU, RAJESH KANNA P</b> |
| <b>Class Number(s)</b>             | : | <b>VL2026270105764, 5769, 5773, 5777, 5789, 5956, 5962, 5967, 5973, 5977, 6157, 5989, 6099</b>                                                                                              |
| <b>Date of Examination</b>         | : | <b>27-09-2026</b>                                                                                                                                                                           |
| <b>Time of Examination</b>         | : | <b>02:00 PM – 03:30 PM</b>                                                                                                                                                                  |
| <b>Exam Duration</b>               | : | <b>90 minutes</b>                                                                                                                                                                           |
|                                    |   | <b>Maximum Marks: 50</b>                                                                                                                                                                    |

**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 - Analyse, 5 - Evaluate, 6 - Create)
- Course Outcomes Statements:  
CO3: Apply BIS standards to create basic 2D and 3D representations of engineering components.

| Q. No | Question                                                                                                                                                                                                                              | M  | CO | BL  |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1.    | <p>Identify the incorrect dimensioning practices in the given drawing. Redraw the 2D Figure 1 and apply all dimensions according to standard dimensioning conventions.</p> <p align="center">Figure 1. (All dimensions are in mm)</p> | 10 | 3  | BL3 |



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2. Draw the front view, top view and left side view for the component shown in Figure 2. Use the first angle projection method.

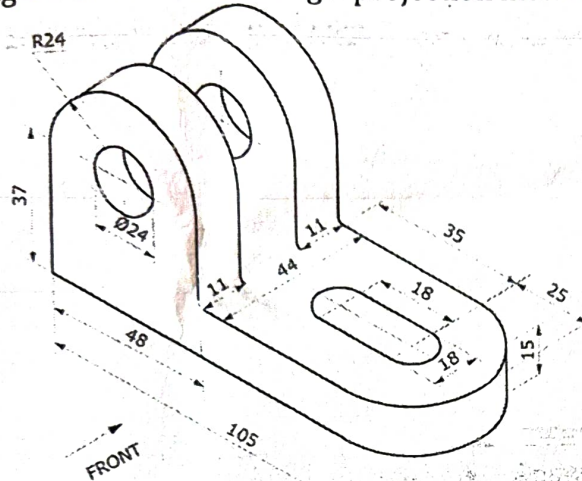


Figure 2. (All dimensions are in mm)

3. Draw the front view, top view and right side view for the component shown in Figure 3. Use first angle projection method.  
Note: Use landscape orientation of answer sheet.

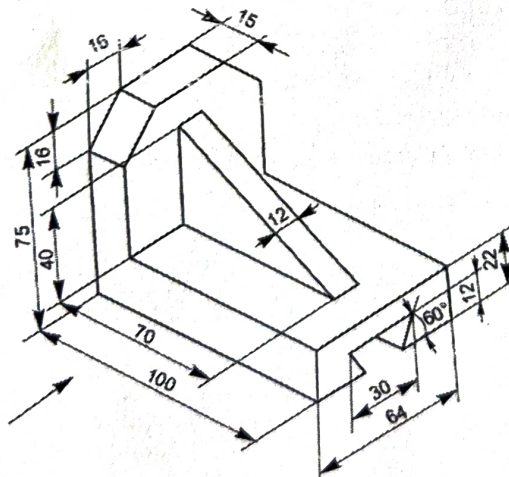


Figure 3. (All dimensions are in mm)

4. Draw the projections of a pentagonal pyramid, Base 30mm edge and axis 50 mm long, having its base on HP and edge of the base parallel to VP. Draw the projections.
5. A hexagonal prism has one of its rectangular faces parallel to the HP. Its axis is perpendicular to the VP and 35 mm above the HP. Draw its projections when the nearer end is 20 mm in front of VP. The side of base is 25mm and axis is 50 mm long.

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