



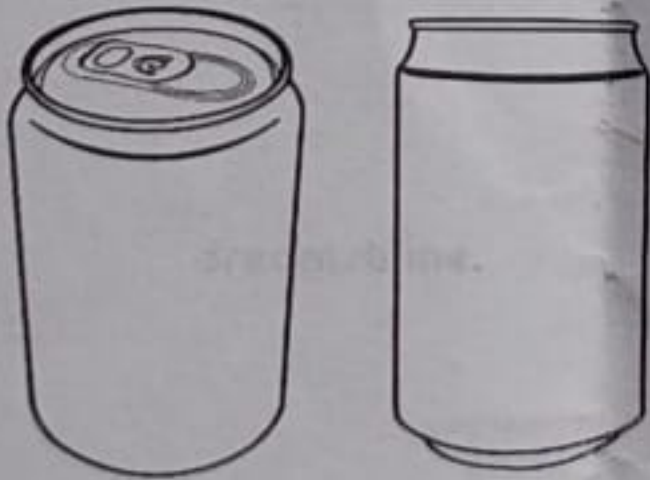
SCHOOL OF MECHANICAL ENGINEERING
CONTINUOUS ASSESSMENT TEST - II
FALL SEMESTER 2025-2026

Programme Name & Branch	: B-Tech, Mechanical Engineering
Course Code	: BAMEE101
Course Name	: Manufacturing Processes
Faculty Name(s)	: Dr Rijesh M, Dr VG Sridhar, Dr Sampath Kumar T, Dr Pandivelan C, Dr Vezhavendhan R
Class Number(s)	: VL2025260106894, VL202560106890, VL202560106913 VL202560107521, VL2025260106957
Date of Examination	: 07-10-2025
Exam Duration	: 90 minutes
Maximum Marks: 50	

General instruction(s):

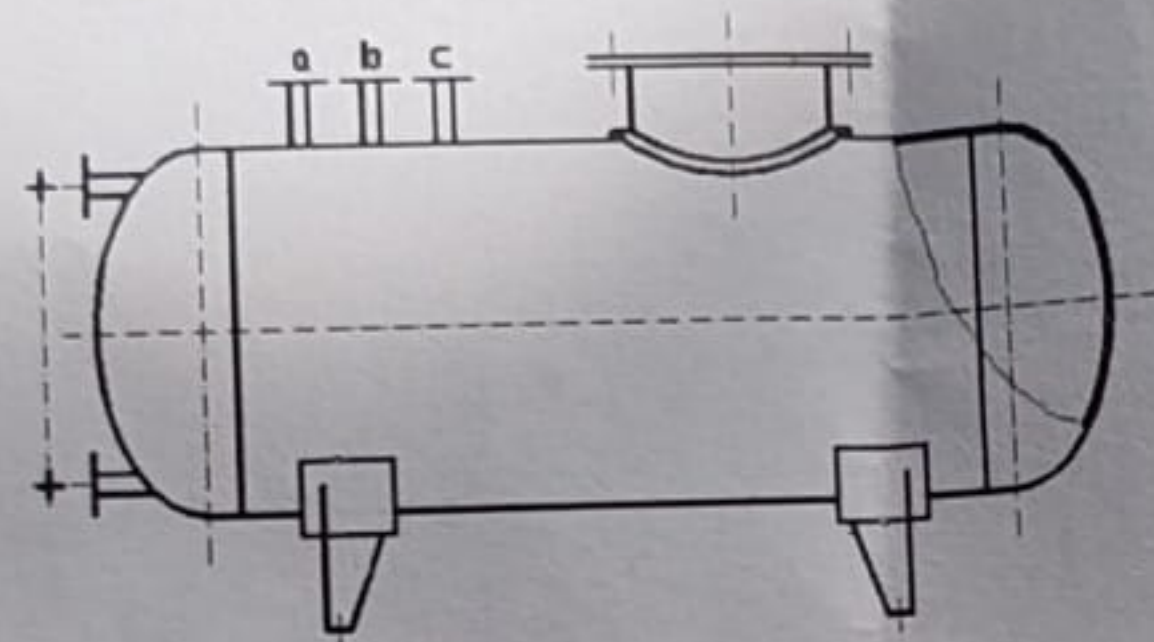
- Answer **All** Questions
- M - Max mark; CO - Course Outcome; BL - Blooms Taxonomy Level (1 - Remember, 2 - Understand, 3 - Apply, 4 - Analyze, 5 - Evaluate, 6 - Create)
- Course Outcome Statements:

CO 2: Describe forming and welding processes, identify common defects, and discuss basic inspection methods.

Q. No	Question	M	CO	BL
1/0	Suggest a manufacturing process to produce a beverage can as shown in Fig.1 and explain each step in detail. Also, if the surface area of the can, excluding the lid, is 500 cm^2, predict the surface area of the sheet metal blank used for manufacturing it by assuming no thinning.  Fig. 1 Beverage Can	10	02	BL4
2/	Identify and explain the suitable extrusion method for the manufacturing of seamless pipes used in the oil and gas industries with the help of neat sketches.	10	02	BL3



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3.	Suggest a suitable welding process used for root welding of low-pressure vessels, as shown in Fig. 2, with a non-consumable electrode, shielding gas, and filler wire. Explain it in detail with a neat sketch.  Fig.2 Low pressure vessel	10	02	BL3
4.	Identify and explain the suitable welding process used for welding large plates of steel to build a ship, in which the arc and weld zone are completely covered under a blanket of granular flux. Also mention the effects of using acidic flux in this process.	10	02	BL3
5.	Suggest a cost-effective solution to join cylindrical motor shaft sections together for complete metal fusion without the need for fluxes, fillers, gases, or an external heat source. Explain the process in detail with a neat sketch.	10	02	BL3