GUJARAT TECHNOLOGICAL UNIVERSITY
B.VOC- SEMESTER–VI EXAMINATION – SUMMER 2025

Subject Code:21160301   **Date:08-05-2025**
Subject Name: Estimating Costing and Economics
Time:10:30 AM TO 12:30 PM   **Total Marks:50**
Instructions:
  1. **Attempt all questions.**
  2. **Make suitable assumptions wherever necessary.**
  3. **Figures to the right indicate full marks.**
  4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Represent cost components by a block diagram.	**05**
	(b)	Enlist different elements of cost and explain any one of them.	**05**
Q.2	**(a)**	Write short note on elements of economics.	**05**
	(b)	Write the importance of cost estimating.	**05**
		OR	
	(b)	Differentiate between estimating and costing.	**05**
Q.3	**(a)**	Define mensuration. Write volume of 3D shapes.	**05**
	(b)	A MS plate 500 mm long is to be rough finished by plain milling. If the tool travel is 25 mm more in addition to job length and feed is 100 mm/min. Find the time required for one cut.	**05**
		OR	
Q.3	**(a)**	What is mensuration? Write area and perimeter of 2D shapes.	**05**
	(b)	Enlist different types of time to be considered in machine shop for calculating labor cost and explain any one of them.	**05**
Q.4	**(a)**	Enlist different operations performed on lathe machine and write equation for finding machining time for any one of them with neat sketch.	**05**
	(b)	Derive the equation of operation time for face milling.	**05**
		OR	
Q.4	**(a)**	Find out actual acetylene cost to manufacture 100 mm × 100 mm × 100 mm size open tank by gas welding. The size of sheet is 5 mm. Welding is to be done in inner-side only. Acetylene consumption = 0.09 m^3/m of weld Cost of acetylene = ₹ 500/ m^3	**05**
	(b)	Find out actual oxygen cost to manufacture 2000 mm × 2000 mm × 2000 mm size open tank by gas welding. The size of sheet is 2 mm. Welding is to be done in inner-side only. Oxygen consumption = 0.12 m^3/m of weld Cost of oxygen = ₹ 50/ m^3	**05**
Q.5	**(a)**	Enlist different types of welded joints.	**05**
	(b)	List the factors affecting the arc-welding cost.	**05**
		OR	
Q.5	**(a)**	State the steps of estimating gas welding cost.	**05**
	(b)	List the factors affecting the gas welding cost.	**05**

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