GUJARAT TECHNOLOGICAL UNIVERSITY
BE- VIth SEMESTER–EXAMINATION – MAY- 2012

Subject code: 162505   **Date: 22/05/2012**
Subject Name: Estimating, Costing & Engineering Economics
Time: 10:30 am – 01:00 pm   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Define Estimating. Explain constituents of Estimation in detail.	**07**
	(b)	What is Costing? Why Costing is essential in industrial control? Explains Book – Keeping with its advantatages.	**07**
Q.2	**(a)**	Explain valuation of materials issued from stores in detail.	**07**
	(b)	What is labour costing? Discuss various methods of Wage payment with advantages and disadvantages.	**07**
		OR	
	(b)	Define Overheads. Give classification of Overheads. Explain Fixed and variable Overheads.	**07**
Q.3	**(a)**	Explain tools and techniques for cost reduction.	**07**
	(b)	What is mensuration? Give its importance. Write formula for calculates volume and surface areas of various basic types of solids.	**07**
		OR	
Q.3	**(a)**	Explain various methods used for calculating areas of irregular figures.	**07**
	(b)	A 150 mm long M.S. bar is to be turned from 40 mm diameter in single cut in such a way that for 50 mm length its diameter is reduced to 38 mm and remaining 100 mm length is reduced to 34 mm. After that 50 mm length with 38 mm diameter is Knurled on the surface. For turning assuming cutting speed as 30 m/min, feed as 0.2 mm/rev and for Knurling cutting speed is 20 m/min and feed is 0.3 mm/rev. Estimate the total time required for producing job, time required for setting and mounting of the job in a three jaw chuck is 30 sec. Neglect the tool setting time.	**07**
Q.4	**(a)**	A press making 60 strokes per minutes is used for making 30 blanks of 100 mm × 170 mm size from each strip. Calculate the time required for blanking each strip if only 60 % of the strokes are utilized. If holes are also pierced on this press, find out the total time for blanking and piercing for 200 components.	**07**
	(b)	Explain Estimation of net weight, Estimation of losses and Estimation of time in forging shop.	**07**
		OR	
Q.4	**(a)**	Calculate the material cost and labour cost for welding 35 mm × 35 mm × 6 mm angle iron into an equilateral triangular frame of side 175 mm each. If the rates for oxygen, acetylene and filler material are Rs. 10 /cu.m. Rs. 55 /cu.m and Rs. 2 /kg respectively. Worker is available at Rs. 3/hour.	**07**
	(b)	Explain Estimation of pattern cost and Estimation in foundry shop.	**07**

| **Q.5** | **(a)** | What is standard costing? How standard cost is determined? Give difference between Estimated costing and standard costing. | **07** |
| | **(b)** | Give procedure for costing. Also explain in details various costing methods. | **07** |

OR

| **Q.5** | **(a)** | Explain importance of capital. Give its functions and various forms of capital. | **07** |
| | **(b)** | Define Money. Give various functions and types of Money. How value of money is determined? | **07** |

****