

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION)**

**CLASS: BE/BARCH  
BRANCH: ALL**

**SEMESTER: VI  
SESSION: SP/2020**

**SUBJECT: PE6009 ENGINEERING ECONOMY**

**TIME: 1.5 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The total marks of the questions are 30.
  2. Candidates may attempt for all 30 marks.
  3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. The missing data, if any, may be assumed suitably.
  6. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
- 

- Q1 (a) Define the accounting principles in basic terms: (i) Accounting period Principle (ii) Full disclosure principle. [2]
- (b) Using accounting equation, show the following effect of above transaction on liabilities, capital and assets of business. [3]
- (i). Rahul started business with case 50,000
  - (ii). Purchase goods for 3000 in case.
  - (iii). Purchase furniture 5000
  - (iv). Sold goods costing 2000 for 2400
  - (v). Paid 3000 as salaries
  - (vi). Withdraw 2000 for personal use.

- Q2 The following journal entries for the transactions and post them to ledgers [2]

Salaries Account To Bank Account (Being the salaries paid)	Dr. 15000	Cr. 1500
Sohan Account To Bank Account Discount Account (Being the cheque issue to Sohan in settlement)	10,000	9600 400

- (b) Define the following terms (i) Outstanding Expenses (ii) Prepaid Expenses (iii). Accrued Income (iv) Unearned Income [3]
- Q3 (a) The journal entries for the transaction and post them to ledgers [5]
- (i) Ramesh Started business with case 1,00,000 (ii). Paid into Bank 70,000 (iii). Bought good for case 5000 (iv) Drew case form bank for office 1000 (v) Sold to Krishna good on credit 1500 (vi) Bought good from Shyam on credit 2250 (vii) Received from Krishna for final settlement.
- Q4 (a) Define: Sunk cost and Opportunity cost [2]
- (b) Determine the amount of fixed cost for the following information: [3]
- Sales = 2,40,000 Direct Material = 80,000 Direct labor = 50,000 Variable overheads = 20,000 Profit = 50,000.
- Q5 (a) Explain Break even analysis and give their assumption. [2]
- (b) Show that the quantity Q to be produced and sold to have the desired profit P is  $Q = \frac{P}{F/P-b-a}$  where F-fixed cost b-selling price per unit and a-variable costs per unit. [3]
- Q6 (a) Define: profit-volume (p/v) ratio [2]
- (b) ABC Company plans to sell an article at a local market. The articles are purchased at Rs. 5 on the condition that all unsold articles shall be returned. The rent for the space is Rs. 2000. The articles will be sold at Rs. 9. Determine the number of articles which must be sold (a) To break-even, (b) To earn Rs. 400 as profit, (c) If the company sell 750 articles. Calculate margin of safety and profit. [3]