

Bachelor of Power Engineering Examination, 2017
(2nd Year, 2nd Semester)
Engineering Economics and Costing

Time: Three Hours

Full Marks: 100

1. Fill in the blanks

1 x 16 = 16

- (a) At the 2nd stage of the law of variable proportions, Average Production _____ than Marginal Production.
- (b) $LRV = \frac{\text{standard rate of labour} - \text{actual rate of labour}}{\text{standard rate of labour}}$
- (c) If the inventory turnover ratio is 8, and average inventory value is Rs. 2 crore, Cost of Goods Sold = _____.
- (d) In the simple double entry system every entry has its corresponding _____ and debit.
- (e) Liabilities are considered to have _____ balance.
- (f) When there is an increase in the amount of 'Sundry Debtors', is it debited or credited? _____
- (g) Everything else remaining the same, when the price of a complement good drops, the demand curve shifts to the _____.
- (h) $(\text{Total Debt} / \text{Total Equity}) = \text{Ratio}$.
- (i) If GDP = Rs. 10,000 million; money supply = Rs. 5,000 million. Then, the income velocity of money = _____.
- (j) If α and β are the output elasticities of capital and labour, respectively, and if $\alpha + \beta > 1$, the production function has a / an _____ returns to scale.
- (k) Capitalization Ratio is the ratio of _____ to (Long-term Debt + Shareholder's Equity).
- (l) _____ rate is the rate at which RBI lends to commercial banks.
- (m) Maximum number of members in case of a private limited company is _____.
- (n) A combination of firms involved in unrelated lines of business activities is called a _____ merger.
- (o) The 'BOT' model of PPP stands for Build - _____ - Transfer.
- (p) Materials that are received last and issued first; this type of inventory cost accounting is called _____.

2. Answer any three questions.

10 x 3 = 30

- (a) Write short notes on any two of the following: 5 + 5
(i) Isoquants, (ii) The Equation of Exchange & Velocity of Money, (iii) Central Problems of an Economy,
- (b) A mechanical device with an economical life of 7 years will cost Rs. 50,000 for purchase. Maintenance will cost Rs. 2,000 per year starting from the 1st year. The device will generate revenues of Rs. 12,000 each year. There will be an up gradation cost of Rs 10,000 for the device at the end of fourth year. Salvage value will be Rs 20,000. If the required rate of return is 10%, should the device be purchased based on NPV? 10
- (c) What do you mean by commercial bank? Briefly discuss secondary functions of a commercial bank. 2 + 8
- (d) Summarise the problems faced by developing countries on foreign trade. 10
- (e) List general principles of cost accounting. List the steps involved in budgetary control. 5 + 5
- (f) Prepare a flexible budget for production of 15,000 units from the following information: 10
The expenses budgeted for production of 10,000 units in a factory are furnished below:

	Per unit in Rs
Material cost	65
Labour cost	25
Variable factory over head	20
Fixed factory over head (Rs. 3,00,000)	30
Variable expenses(Direct)	14
Selling expenses (30% fixed)	20
Distribution overhead (10% fixed)	10
CEO's salary (Rs. 60,000)	6
Other administration expenses (Rs,150,000)	15

3. Answer any three questions.

18 x 3 = 54

- (a) Define 'Economies of Scale'. Classify 'Internal Economies of Scale'. What does 'External Economies of Scale' mean to you? Explain classifications of 'External Economies of Scale'. 2 + 5 + 2 +
- (b) Explain activity ratios with their implications in your own words. 18
- (c) Describe your understanding in detail on joint-stock companies. 18
- (d) From the following list of transactions prepare appropriate journal entries, ledger entries and the relevant month- end trail balance: 3 x 4 +
- (i) Indra started a business with Rs.180 trillion in capital on 01/04/2016.
 - (ii) Purchased Fixed Assets for Rs. 300 billion on credit on 10 / 04 / 2016
 - (ii) Purchased furniture of Rs.60 billion in cash on 15 / 04 / 2016.
 - (iii) Purchased inventories on 20 / 04 / 2016 from M/S Vishwakarma for trading of Rs.1.2 trillion in cash.
- (e) Prepare a cost sheet in the book of Durga Co. Pvt. Ltd. from the following particulars: (use proper format, and show calculations separately) 18

	Rs. ('000)		Rs.('000)
Opening stock			
Raw – materials	5,000	Power (factory)	2,000
Finished goods	4,000	Factory heating and lighting	2,000
Closing stock		Factory insurance	1,000
Raw – materials	4,000	Experimental Expenses	500
Finished goods	5,000	Sales of wastage of materials	200
		Office management salaries	4,000
Raw – materials purchased	50,000	Office printing and stationery	200
Wages paid to labourers	20,000		
		Salaries of salesmen & commission of travelling agent	2,000
Chargeable expenses	2,000	Sales	1,00,000
Factory rent & taxes	5,000		

- f) The following trial balance was taken from the books of Lakshmi Co. on December 31, 2016. All amounts are in Rupees.

Cash	13,000	
Sundry debtors	10,000	
Bill receivable	8,500	
Opening stock	45,000	
Building	50,000	
Furniture and fittings	10,000	
Investment (Temporary)	5,000	
Plant and Machinery	15,500	
Bills payable		9,000
Sundry creditors		20,000
Lakshmi's capital		78,200
Lakshmi's drawings	1,000	
Sales		100,000
Sales discount	400	
Purchases	30,000	
Freight in	1,000	
Purchase discount		500
Sales salary expenses	5,000	
Advertising expenses	4,000	
Miscellaneous sales expenses	500	
Office salary expenses	8,000	
Misc. general expenses	1,000	
Interest income		1,000
Interest expenses	800	
	<u>2,08,700</u>	<u>2,08,700</u>

Closing stock on December 31, 2016 was Rs.10,000

Prepare a trading account, profit and loss account, and an end of year balance sheet from the above trial balance in report form.

6 + 6 + 6