

2016

ECONOMICS FOR ENGINEERS

(HMTS 3101)

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

Candidates are required to answer Group A and any 5 (five) from Group B to E, taking at least one from each group.

Candidates are required to give answer in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: [10 x 1=10]
- i) Which of the following is NOT a feature of perfect competition?
- a) large number of buyers and sellers
 - b) homogenous product
 - c) barriers to entry into the market
 - d) absence of transportation cost
- ii) _____ is an example of Real Account.
- a) Salary
 - b) Machinery
 - c) Sales
 - d) Mr. Robin (Proprietor)
- iii) The primary functions of Commercial banks do not include
- a) Savings deposit account
 - b) Cash Credits
 - c) Discounting of bills
 - d) Regulating interest rates
- iv) We get to know _____ from the Trading Account.
- a) Operating Profit
 - b) Selling & distribution expenses
 - c) Gross Profit
 - d) Net Profit

- v) Increase in price of goods due to increase in price of diesel is an example of _____
- a) Cost-push inflation b) Demand-pull inflation
c) Hoarding d) Deficit financing
- vi) Current ratio is a _____ ratio.
- a) profitability b) Liquidity c) Turnover d) Valuation
- vii) _____ is an example of Variable Cost.
- a) Raw materials b) Depreciation of machinery
c) Samples d) Factory manager's salary
- viii) Debt is a more _____ source of capital.
- a) Risky b) Expensive c) Long term d) Permanent
- ix) Which is not true at Break Even Point
- a) Total income and total loss are same b) High profit
c) No loss d) No profit
- x) The value of a Fixed asset after deducting depreciation is referred to as
- a) Average value b) Added Value
c) Step up value d) Written down value

GROUP - B

2. What are Perfect Competition and Monopoly as types of markets?
Discuss their characteristics.

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3. a) Define Demand.

b) Explain what do you understand by price elasticity, income elasticity and cross elasticity of demand.

3+9=12

GROUP - C

4. Discuss Sole Proprietorship and Public Limited Company as types of business and highlight their characteristics. 12
5. What are the functions of Reserve Bank of India? 12

GROUP - D

6. a) What are the different types of accounts and what are the related Golden Rules?
- b) Study the following information carefully and answer questions accordingly:

**Profitability statement of XYZ Ltd
for year ending 31.03.'16**
(figures in Rs Lakhs)

**Balance Sheet of XYZ Ltd
as on 31.03.'16**
(figures in Rs Lakhs)

		<u>Liabilities</u>		<u>Assets</u>	
Net Sales	70.1	Equity Share Capital	15.0	Fixed Assets	33.0
Cost of goods sold	55.2			Investment	1.5
Gross Profit	14.9	Reserves	11.2		
				<u>Current assets</u>	
Depreciation	3.0			Cash/ bank	1.1
General expenses	1.2			Debtors	11.8
Selling expenses	1.8	6.0	Loans	21.2	10.6
Earnings before Interest and Tax (EBIT)	8.9				
Interest	2.1				
Profit before Tax (PBT)	6.8				
Tax	3.4	Current Liabilities	<u>10.6</u>		
Profit after Tax (PAT)	3.4		<u>58.0</u>		<u>58.0</u>

Based on the above figures compute

- i) Quick Ratio ii) Return On Investment iii) Inventory Turnover Ratio
iv) Net profit margin ratio v) Current Ratio vi) Debt-Equity Ratio

3+9=12

7. a) What is meant by B.E.P ? What is its significance? How can a Company reduce its B. E. P ?
- b) Highlight the various aspects of B. E. P through a graphical representation.
- c) What is meant by Flexible budget and what are its benefits?
- d) Based on information given below, you are required to compute the flexible budget for levels of activities of 4,000 and 12,000 units.

Level of activity	10,000 units
	Rs.
Material	8,00,000
Fuel Cost	3,00,000
Other Variable Costs	2,00,000
Rent	1,00,000
Selling Expenses (60% variable)	1,00,000
Distribution Expenses (50% fixed)	<u>60,000</u>
	<u>15,60,000</u>

2+4+2+4=12

GROUP - E

- 8 a) What are Debt and Equity Share capital as sources of fund and what are the major differences between the two?

b) What is meant by WACC ?

c) Following information is available regarding the capital structure of a company:

	Amount (Rs)	After tax Cost(%)
Equity share capital	8,00,000	20
Preference share capital	4,00,000	10
Long- term debt	8,00,000	15

Based on the above information compute the Weighted Average Cost of Capital.

$$4+2+6=12$$

9 a) Explain the term payback period in the context of capital budgeting. What are the merits and demerits of this method?

b) The initial investment for a machine is Rs 2,50,000. The expected cash inflow from the machine is as under. Calculate the payback period.

Year	Cash Inflows(Rs)
2017	60,000
2018	70,000
2019	60,000
2020	90,000
2021	50,000

$$6+6=12$$