### B.TECH/ AEIE/BT/CE/CHE/CSE/ECE/EE/ME/IT /5<sup>TH</sup> SEM/ HMTS 3101 /2018 **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:  $10 \times 1 = 10$ 
  - (i) If the volume of operation of a production center is half of its break even quantity, it will result in -(a) loss (b) unpredictability (d) None of these. (c) profit Too much money chasing too few goods causes -(ii) (a) Cost push inflation (b) Demand pull inflation (d) Deflation. (c) Stagflation
  - Debit all expenses & losses and credit all incomes & gains is the golden rule (iii) of
    - (a) Personal Accounts (b) Nominal Accounts (c) Real Accounts (d) Management Accounts.
  - Operating ratio is (iv) (a) Liquidity ratio (b) Solvency ratio (c) Activity ratio (d) Profitability ratio.
  - (v) A capital asset costing Rs.50,000 depreciates in 5 years with a salvage value of Rs. 5,000. Applying straight line depreciation method, Book value of the asset at the end of 3 years will be -

(a) Rs. 27,000	(b) Rs. 28,000
(c) Rs. 23,000	(d) None of these.

(vi) The market having infinite number of buyers and sellers is an example of

(a) Perfect competition (b) Monopolistic competition (c) Oligopoly (d) Duopoly.

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vii)	Under normal circumstances demand curve		
	(a) Is parallel to X-axis	(b) Is parallel to Y-axis	
	(c) Slopes towards right	(d) Slopes towards left.	

- (viii) Sole proprietorship type of business has
  - (a) Limited liability (b) Unlimited liability (c) Perpetual succession
    - (d) Separate legal entity.
- Savings account is used for (ix) (a) High returns on investment (b) Business purpose (c) Domestic purpose (d) Loan purpose.
- We can calculate the average payment period from \_\_\_\_\_ (x)
  - (a) Debtors Turnover (b) Creditors Turnover
  - (c) Stock Turnover

(d) Asset Turnover

## Group – B

- What is meant by economic disequilibrium? How does it impact the consumers? 2. (a)
  - Highlight the distinction between GDP and GNP. (b)
  - Distinguish Needs from Wants. Give examples to justify your answer. (c)

5+4+3=12

- 3. (a) Explain micro and macro economics.
- (b) Prepare a Cash Budget for the 3 months ending June 2018 from the information given below:
  - (i) 10% of the sales are for cash. The balance amount is collected as: 50% in the next month and 50% in the following month
  - (ii) Creditors allow 2 months credit
  - (iii) Wages for the month are paid in the next month
  - (iv) There is no delay in the payment of overheads
  - (v) Dividends from investments amounting to Rs. 2,000 are expected in the month of May
  - (vi) Advance income tax payable in June Rs. 10,000
  - (vii) Cash and bank balance on 1st April 2018 is expected to be Rs. 15,000

Month	Sales	Material	Wages	Overheads
	Rs.	Rs.	Rs.	Rs.
February	14,000	9,600	3,000	1,700
March	15,000	9,000	3,000	1,900
April	16,000	9,200	3,200	2,000
May	17,000	10,000	3,600	2,200
June	18,000	10,400	4,000	2,300

### B.TECH/AEIE/BT/CE/CHE/CSE/ECE/EE/ME/IT /5<sup>th</sup> SEM/ HMTS 3101 /2018 Group – C

Calculate Net Profit Ratio, Debtors Turnover Ratio, Current Ratio and Debt 4. (a) Equity Ratio from the following figures of a company. All figures are in rupees Lakhs.

Equity Share Capital Rs. 1,000; Reserves and Surplus Rs. 600; 8% Debentures Rs. 400; Sales Rs. 1200; Sundry Debtors Rs. 200; Creditors Rs. 120; Stock Rs. 110; Cash & Bank balance Rs. 50; Net Profit for the year Rs. 240.

From the following information of M/s Lovely Stores prepare a Balance sheet as (b)on 31<sup>st</sup> March 2018:

Sundry Creditors Rs. 60,000; Sundry Debtors Rs. 90,000; Stock on 31st March Rs. 1,10,000; Furniture & Fixtures Rs. 50,000; Capital Rs. 2,90,000; Profit for 2017-18 Rs.50,000; Cash balance Rs. 10,000; Balance at Bank Rs. 29,000; Motor Vehicle Rs. 51,000.

6 + 6 = 12

Journalise the following transactions of M/s. Khaitan & Co. 5. (a)

3 <sup>rd</sup> Jan, 2014	Purchased Goods on Credit from Mr. Suri Rs. 25,000
10 <sup>th</sup> Jan, 2014	Sold Goods for Cash Rs. 33,000
15 <sup>th</sup> Jan, 2014	Bought furniture for Rs.11,000
18 <sup>th</sup> Jan, 2014	Withdrew for personal expense Rs.5,000
21 <sup>st</sup> Jan, 2014	Paid Rs. 11,000 to Mr. Suri towards part payment for goods purchased
29 <sup>th</sup> Jan, 2014	Paid office electric bill Rs. 11,000

Enumerate the significance of cost accounting. How does it differ from financial (b) accounting.

8 + 4 = 12

# Group – D

Initial capital investments for venturing into two Projects A and B, both having a 6. (a) life of 5 years, are Rs.10,00,000 each. Net expected earnings for the projects are as given in the table. All other factors governing the project implementation and execution are identical.

Which project should be chosen (Consider discount rate of 10%) by applying NPV method.

Veer	Expected Earnings (Rs.)	
rear	Project A	Project B
1	3,00,000	4,00,000
2	3,00,000	4,00,000
3	2,00,000	2,00,000
4	3,00,000	3,00,000
5	3,00,000	1,00,000

(b) Give a comparative analysis of Debt financing and Equity financing.

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7. (a) Given:

Selling price	Rs. 80 per unit
Variable cost	Rs. 48 per unit
Fixed cost	Rs. 32,000

Calculate:

- i. Contribution per unit and P/V ratio
- ii. Break-even point in units and rupees
- iii. Number of units to be sold to earn a profit of Rs. 8,000
- iv. Profit earned at a sales volume of Rs. 1,20,000
- (b) What are the unfavourable impacts of inflation on an economy? Explain the monetary measures taken to combat inflation.

8 + 4 = 12

## Group – E

8. (a) Calculate Weighted Average Cost of Capital from the following:

Source	Amount	Cost
	(Rs. in Crores)	
Equity Share Capital	500	25%
Reserves & Surplus	350	-
10% Preference Share Capital	150	-
9% Debentures	125	-
13% Long Term Loan	75	-

(b) What is the maturity value of Rs. 1,00,000 at 12% after 6 years if the interest is compounded annually? How much more would the maturity value be if interest is compounded semi-annually?

6 + 6 = 12

Write short notes on any three of the following -9. (i) Time Value of Money (iii) Cost of Capital (iv) WACC

(ii) Benefits of International Trade

 $3 \times 4 = 12$ 

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