(GI-2, GI-6, GI-7, VI-1, VDI-1, DRIVE & FMT)
DATE: 13.09.2023 MAXIMUM MARKS : 100 TIMING: 3¼ Hours

FM + ECO

SECTION - A

Q. No. 1 is compulsory.
Candidates are also required to answer any four questions from the remaining five questions.
In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of questions top answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.
Working Notes should form part of the respective answer.

Question 1:

(a) Using the following information, complete the Balance Sheet given below:

(i)	Total debt to net worth	:	1 : 2
(ii)	Total assets turnover	:	2
(iii)	Gross profit on sales	:	30%
(iv)	Average collection period (Assume 360 days in a year)	:	40 days
(v)	Inventory turnover ratio based on cost of goods sold and year-end inventory	:	3
(vi)	Acid test ratio (Based on CL)	:	0.75

Balance Sheet
as on March 31, 2019

Liabilities	Rs.	Assets	Rs.
Equity Shares Capital	4,00,000	Plant and Machinery	—
Reserves and Surplus	6,00,000	and other Fixed Assets	
Total Debt:		Current Assets:	
Current Liabilities		Inventory	—
		Debtors	—
		Cash	—
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(5 Marks)

(b) Delta Ltd. currently has an equity share capital of Rs. 10,00,000 consisting of 1,00,000 Equity share of Rs. 10 each. The company is going through a major expansion plan requiring to raise funds to the tune of Rs. 6,00,000. To finance the expansion the management has following plans:

Plan-I : Issue 60,000 Equity shares of Rs. 10 each.
Plan-II : Issue 40,000 Equity shares of Rs. 10 each and the balance through long-term borrowing at 12% interest p.a.
Plan-III : Issue 30,000 Equity shares of Rs. 10 each and 3,000, 9% Debentures of Rs. 100 each.
Plan-IV : Issue 30,000 Equity shares of Rs. 10 each and the balance through 6% preference shares.

The EBIT of the company is expected to be Rs. 4,00,000 p.a. assume corporate tax rate of 40%.

Required:

(i) Calculate EPS in each of the above plans.
(ii) Ascertain financial leverage in each plan.
(iii) Comment which plane is better.

(5 Marks)

(c) Company X is forced to choose between two machines A and B. The two machines are designed differently, but have identical capacity and do exactly the same job. Machine A costs Rs. 1,50,000 and will last for 3 years. It costs Rs. 40,000 per year to run. Machine B is an 'economy' model costing only Rs. 1,00,000, but will last only for 2 years, and costs Rs. 60,000 per year to run. These are real cash flows. The costs are forecasted in rupees of constant purchasing power. Ignore tax. Opportunity cost of capital is 10 per cent. Which machine company X should buy?

(8 Marks)

(d) Define Modified Internal Rate of Return method.

(2 Marks)

Question 2:

A proforma cost sheet of a Company provides the following data:

	Rs.
Raw material cost per unit	117
Direct Labour cost per unit	49
Factory overheads cost per unit	98
(includes depreciation of Rs. 18 per unit at budgeted level of activity)	
Total cost per unit	264
Profit	36
Selling price per unit	300

Following additional information is available:

Average raw material in stock			:	4 weeks
Average work-in-process stock			:	2 weeks
(% completion with				
Respect to Materials	:	80%		
Labour and Overheads	:	60%		
Finished goods in stock			:	3 weeks
Credit period allowed to debtors			:	6 weeks
Credit period availed from suppliers			:	8 weeks
Time lag in payment of wages			:	1 week
Time lag in payment of overheads			:	2 weeks

The company sells one-fifth of the output against cash and maintains cash balance of 2,50,000.

Required:

Prepare a statement showing estimate of working capital needed to finance a budgeted activity level of 78,000 units of production. You may assume that production is carried on evenly throughout the year and wages and overheads accrue similarly.

(10 Marks)

Question 3:

(a) Amita Ltd's operating income is Rs. 5,00,000. The firm's cost of debt is 10% and currently the firm employs Rs. 15,00,000 of debt. The overall cost of capital of the firm is 15%.

You are required to determine:

(i) Total value of the firm.

(ii) Cost of equity. **(5 Marks)**

(b) The following figures are collected from the annual report of XYZ Ltd.:

	Rs.
Net Profit	30 lakhs
Outstanding 12% preference shares	100 lakhs
No. of equity shares	3 lakhs
Return on Investment	20%
Cost of capital i.e. (k_e)	16%

What should be the approximate dividend pay-out ratio so as to keep the share price at Rs. 42 by using Walter model?

(5 Marks)

Question 4:

(a) Determine the risk adjusted net present value of the following projects:

	X	Y	Z
Net cash outlays (Rs.)	2,10,000	1,20,000	1,00,000
Project life	5 years	5 years	5 years
Annual Cash inflow (Rs.)	70,000	42,000	30,000
Coefficient of variation	1.2	0.8	0.4

The Company selects the risk-adjusted rate of discount on the basis of the coefficient of variation:

Coefficient of Variation	Risk-Adjusted Rate of Return	P.V. Factor 1 to 5 years At risk adjusted rate of discount
0.0	10%	3.791
0.4	12%	3.605
0.8	14%	3.433
1.2	16%	3.274
1.6	18%	3.127
2.0	22%	2.864
More than 2.0	25%	2.689

(5 Marks)

(b) The following information is available in respect of Sai trading company:

(i) On an average, debtors are collected after 45 days; inventories have an average holding period of 75 days and creditor's payment period on an average is 30 days.

(ii) The firm spends a total of Rs. 120 lakhs annually at a constant rate.

(iii) It can earn 10 per cent on investments.

From the above information, you are required to calculate:

(a) The cash cycle and cash turnover,

(b) Minimum amounts of cash to be maintained to meet payments as they become due,

(c) Savings by reducing the average inventory holding period by 30 days.

(5 Marks)

Question 5:

A company is presently having credit sales of Rs. 12 lakh. The existing credit terms are 1/10, net 45 days and average collection period is 30 days. The current bad debts loss is 1.5%. In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to 2/10, net 45 days. It is expected that sales are likely to increase by 1/3 of existing sales, bad debts increase to 2% of sales and average collection period to decline to 20 days. The contribution to sales ratio of the company is 22% and opportunity cost of investment in receivables is 15 percent (pre-tax). 50 per cent and 80 percent of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is 30%.

Should the company change its credit terms? (Assume 360 days in a year).

(10 Marks)

Question 6:

(a) State the main features of deep discount bonds.

(5 Marks)

(b) Explain in brief the features of Commercial Paper.

(5 Marks)

SECTION - B

Q. No. 7 is compulsory.
Answer any three from the rest.
In case, any candidate answers extra question(s)/sub-question(s) over and above the required number, then only the requisite number of questions top answered in the answer book shall be valued and subsequent extra question(s) answered shall be ignored.
Working Notes should form part of the respective answer.

Question 7:

(a) Using the information given in the following table calculate,
(i) Value added by firm A and firm B
(ii) Gross Domestic Product at Market Price
(iii) Net Domestic Product at Factor Cost.

	Particulars	**Rs. crore**
(i)	Sales by firm B to general government	300
(ii)	Sales by firm A	1500
(iii)	Sales by firm B to households	1350
(iv)	Change in stock of firm A	200
(v)	Closing stock of firm B	140
(vi)	Opening stock of firm B	130
(vii)	Purchases by firm A	270
(viii)	Indirect taxes paid by both the firms	375
(ix)	Consumption of fixed capital	720
(x)	Sales by firm A to B	300

(5 Marks)

(b) Classify each of the following goods based on their characteristics. Mention the rationale.
(i) Open-access Wi-Fi networks
(ii) Roads with toll booths
(iii) Parks

(3 Marks)

(c) Describe the term 'Tragedy of commons'.

(2 Marks)

Question 8:

(a) Explain the concept of adverse selection. What are the possible consequences of adverse selection?

(3 Marks)

(b) How is exchange rate determined under floating exchange rate regime?

(2 Marks)

(c) What is meant by trade distortion?

(3 Marks)

(d) Define information failure?

(2 Marks)

Question 9:

(a) Define Reserve Money? Compute the Reserve Money from the following data Published by RBI.

Components	(In billions of Rs.) As on 7th July 2018
Currency in circulation	15428.40
Bankers Deposits with RBI	4596.18
Other Deposits with RBI	183.30

(3 Marks)

(b) What role does Market Stabilization Scheme (MSS) play in our economy?
(3 Marks)

(c) Why do you consider national defence as a public good?
(2 Marks)

(d) Explain the function of money as a unit of account?
(2 Marks)

Question 10:

(a) What is local content requirement? How will it affect trade?
(3 Marks)

(b) Define 'dumping'? What is meant by an 'Anti-dumping' measure?
(3 Marks)

(c) Explain the term quasi-public goods.
(2 Marks)

(d) Explain how speculative motive for holding cash is related to market interest rate.
(2 Marks)

Question 11:

(a) What are the major functions of the WTO? What do you understand by the term 'Most-favored-nation' (MFN)?
(3 Marks)

(b) Define foreign direct investment (FDI). Mention two arguments made in favour of FDI to developing economies like India?
(3 Marks)

(c) Analyse what should be the tax policy during recession and depression?
(2 Marks)

(d) Examine what would be the effect on money multiplier if banks hold excess reserves?
(2 Marks)

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