

Total No. of Questions – 11

Total No. of Printed Pages – 12

Time Allowed – 3 Hours

Maximum Marks – 100

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Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate who has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

SECTION – A

60 Marks

Question No. 1 is compulsory.

Candidates are also required to answer any **four** questions from the remaining **five** questions.

Working notes should form part of the respective answers.

1. (a) K Ltd. has a Quarterly cash outflow of ₹ 9,00,000 arising uniformly during the Quarter. The company has an Investment portfolio of Marketable Securities. It plans to meet the demands for cash by periodically selling marketable securities. The marketable securities are generating a return of 12% p.a. Transaction cost of converting investments to cash is ₹ 60. The company uses Baumol model to find out the optimal transaction size for converting marketable securities into cash. 5
- Consider 360 days in a year.
- You are required to calculate
- (i) Company's average cash balance,
 - (ii) Number of conversions each year and
 - (iii) Time interval between two conversions.

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(b) The following figures are related to the trading activities of M Ltd.

Total assets	-	₹ 10,00,000
Debt to total assets	-	50%
Interest cost	-	10% per year
Direct Cost	-	10 times of the interest cost
Operating Exp.	-	₹ 1,00,000

The goods are sold to customers at a margin of 50% on the direct cost

Tax Rate is 30%

You are required to calculate

- Net profit margin
- Net operating profit margin
- Return on assets
- Return on owner's equity

(c) The following is the extract of the Balance Sheet of M/s KD Ltd. :

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Particulars	Amount (₹)
Ordinary shares (Face Value ₹ 10/- per share)	5,00,000
Share Premium	1,00,000
Retained Profits	6,00,000
8% Preference Shares (Face Value ₹ 25/- per share)	4,00,000
12% Debentures (Face value ₹ 100/- each)	6,00,000
	22,00,000

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The ordinary shares are currently priced at ₹ 39 ex-dividend and preference share is priced at ₹ 18 cum-dividend. The debentures are selling at 120 percent ex-interest. The applicable tax rate to D Ltd. is 30 percent. KD Ltd.'s cost of equity has been estimated at 19 percent. Calculate the WACC (weighted average cost of capital) of KD Ltd. on the basis of market value.

- (d) Determine the Risk Adjusted Net Present Value of the following projects :

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	A	B	C
Net cash outlays (₹)	70,000	1,20,000	2,20,000
Project life	5 years	5 years	5 years
Annual cash inflow (₹)	30,000	42,000	70,000
Coefficient of Variation	2.2	1.6	1.2

The company selects the risk-adjusted discount rate on the basis of the Coefficient of variation.

Coefficient of Variation	Applicable Risk adjusted discount rate (i)	PVIFA(i,5)
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	22%	2.864
>2.0	25%	2.689

Which project should be selected by the company based on Risk Adjusted NPV ?

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2. The following information is available for SS Ltd.

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Profit volume (PV) ratio	-	30%
Operating leverage	-	2.00
Financial leverage	-	1.50
Loan	-	₹ 1,25,000
Post-tax interest rate	-	5.6%
Tax rate	-	30%
Market Price per share (MPS)		₹ 140
Price Earnings Ratio (PER)		10

You are required to

- (1) Prepare the Profit-Loss statement of SS Ltd. and
- (2) Find out the number of equity shares.

3. A firm is in need of a small vehicle to make deliveries. It is intending to choose between two options. One option is to buy a new three wheeler that would cost ₹ 1,50,000 and will remain in service for 10 years.

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The other alternative is to buy a second hand vehicle for ₹ 80,000 that could remain in service for 5 years. Thereafter the firm, can buy another second hand vehicle for ₹ 60,000 that will last for another 5 years.

The scrap value of the discarded vehicle will be equal to its written down value (WDV). The firm pays 30% tax and is allowed to claim depreciation on vehicles @ 25% on WDV basis.

The cost of capital of the firm is 12%.

You are required to advise the best option.

Given:

t	1	2	3	4	5	6	7	8	9	10
PVIF (t, 12%)	0.892	0.797	0.711	0.635	0.567	0.506	0.452	0.403	0.360	0.322

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4. A hospital is considering to purchase a diagnostic machine costing ₹ 80,000. The projected life of the machine is 8 years and has an expected salvage value of ₹ 6,000 at the end of 8 years. The annual operating cost of the machine is ₹ 7,500. It is expected to generate revenues of ₹ 40,000 per year for eight years. Presently, the hospital is outsourcing the diagnostic work and is earning commission income of ₹12,000 per annum.

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Consider tax rate of 30% and Discounting Rate as 10%.

Advise :

Whether it would be profitable for the hospital to purchase the machine?

Give your recommendation as per Net Present Value method and Present Value Index method under below mentioned two situations:

- (i) If Commission income of ₹12,000 p.a. is before taxes.
(ii) If Commission income of ₹12,000 p.a. is net of taxes.

Given :

t	1	2	3	4	5	6	7	8
PVIF (t, 10%)	0.909	0.826	0.751	0.683	0.621	0.564	0.513	0.467

5. (a) The following are the costs and values for the firms A and B according to the traditional approach.

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	Firm A	Firm B
Total value of firm, V (in ₹)	50,000	60,000
Market value of debt, D (in ₹)	0	30,000
Market value of equity, E (in ₹)	50,000	30,000
Expected net operating income (in ₹)	5,000	5,000
Cost of debt (in ₹)	0	1,800
Net Income (in ₹)	5,000	3,200
Cost of equity, $K_e = NI/V$	10.00%	10.70%

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- (i) Compute the Equilibrium value for Firm A and B in accordance with the M-M approach. Assume that (a) taxes do not exist and (b) the equilibrium value of K_e is 9.09%.
- (ii) Compute Value of Equity and Cost of Equity for both the firms.
- (b) MR Ltd. is having the following capital structure, which is considered to be optimum as on 31.03.2022.

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Equity share capital (50,000 shares)	₹	8,00,000
12% Pref. share capital	₹	50,000
15% Debentures	₹	1,50,000
	₹	10,00,000

The earnings per share (EPS) of the company were ₹ 2.50 in 2021 and the expected growth in equity dividend is 10% per year. The next year's dividend per share (DPS) is 50% of EPS of the year 2021. The current market price per share (MPS) is ₹ 25.00. The 15% new debentures can be issued by the company. The company's debentures are currently selling at ₹ 96 per debenture. The new 12% Pref. share can be sold at a net price of ₹ 91.50 (face value ₹ 100 each). The applicable tax rate is 30%.

You are required to calculate

- (a) After tax cost of
- New debt,
 - New pref. share capital and
 - Equity shares assuming that new equity shares come from retained earnings.

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(b) Marginal cost of capital.

How much can be spent for capital investment before sale of new equity shares assuming that retained earnings for next year investment is 50% of 2021 ?

6. (a) These bonds are issued by non-US Banks and non-US corporations in US. What this bond is called and what are the other features of this Bond ? 4

(b) Elucidate the fundamental tasks of treasury department of a firm. 4

(c) The firm has more capital than its requirements. What is this situation called ? Give two consequences of it. 2

OR

What are the important factors considered for deciding the source and quantum of capital ? 2

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SECTION – B

40 Marks

Question No. 7 is compulsory.

Answer any **three** questions from the rest.

Working notes should form part of the respective answers.

7. (a) The equilibrium level of income (Y) of an economy is ₹ 2,000 crores. 3
The autonomous consumption expenditure (a) is equal to ₹ 100 crores and investment expenditure (I) is ₹ 500 crores. You are required to calculate :
- (i) Consumption expenditure at equilibrium level of National Income.
 - (ii) Marginal Propensity to Consume (MPC) and Marginal Propensity to Save (MPS).
 - (iii) Equilibrium level of income if saving function is $S = -10 + 0.2Y$.
- (b) What are the two forms, through which foreign capital may flow into an economy, as an investment ? 2
- (c) Define 'Money Multiplier'. Use of e-wallets is increasing at fast pace nowadays. How this enhanced use of e-wallets is affecting money multiplier and money supply ? 3
- (d) What is the difference between price ceiling and price floor ? 2

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8. (a) (i) The Rupee dollar exchange rate for two different periods of a particular financial year are as follows : **3**

(1) In the month of January it is \$ 1 = ₹ 65; and

(2) In the month of April it is \$ 1 = ₹ 70

Answer :

A. What does this indicate ?

B. Who will be benefited, either residents of India or foreigners ?

C. Explain the impact of exchange fluctuations in terms of appreciation of currency on inflation.

- (ii) One of the biggest problem with using discretionary policy to counteract fluctuations is the different types of lags involved in fiscal policy action. What are these lags ? **2**

- (b) (i) The following data is available for a company : **3**

Particulars	Amount (in ₹ Crore)
Gross Value Added (GVA _{MP})	2,750
Sales	3,450
Closing Stock	750
Interest	200
Opening Stock	900
Net indirect taxes	550
Rent	310
Mixed income	380
Compensation to employees	600
Consumption of fixed capital	320

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Based on the above information, compute the following :

- (i) Amount of Intermediate Consumption.
- (ii) Net Domestic Product at Factor Cost (NDP_{FC}).
- (iii) Profit of the company.

(b) (ii) Explain briefly the Deflationary Gap.

2

9. (a) (i) Explain the operation of Cash Reserve Ratio.

3

(ii) "Net Exports" can be negative or positive. How is it significant for the economy of a country ?

2

(b) (i) Tariffs are basically taxes or duties on goods and services which are imported or exported. Briefly explain Preferential, Applied and Escalated tariff.

3

(ii) Write down the name of fiscal function of the Government in Economic System, for the following cases :

2

i) Government imposes higher taxes on tobacco products in Union Budget.

ii) Government scheme providing free ration to BPL families.

iii) Government providing subsidy to farmers in purchasing of Urea for agricultural purpose.

iv) Increase in Government expenditure in the time of recession.

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10. (a) (i) Discuss with example the following types of Foreign Direct Investment. 3
- (A) Horizontal Direct Foreign Investment
- (B) Vertical Direct Foreign Investment
- (C) Two-way Direct Foreign Investment
- (ii) Mention the name of the externalities (along with reason in brief) covered in the following acts : 2
- (i) A Road Construction Company provides training to its employees to learn latest technology for durable road construction.
- (ii) People taking COVID Booster Dose happily.
- (b) (i) What do you understand by "Liquidity Adjustment Facility (LAF)" ? 3
- (ii) Markets are amazingly competent in organizing the activities of an economy as they are generally efficient and capable of achieving optimal allocation of resources. However, market failure occurs. Discuss briefly any two reasons leading to market failure. 2
11. (a) (i) How are the following transactions treated in National Income Calculation ? 3
- (A) B sold a used car to C and receive ₹. 80,000. How much of the sale proceeds will be included in National Income calculation ?
- (B) Fees paid to real estate agents and lawyers.
- (C) Electric power sold to a consumer household.

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- (ii) What are the guiding principles of World Trade Organization (WTO)? 2

- (b) (i) Discuss with examples the major aspects of market failures. 3
(ii) Briefly explain the concept of "Liquidity Trap". 2

OR

Why empirical analysis of money supply is important?

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