

Roll No.

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.

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1. (a) Following information are given for a company :

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Earnings per share	₹ 10
P/E ratio	12.5
Rate of return on investment	12%
Market price per share as per Walter's model	₹ 130

You are required to calculate :

- (i) Dividend payout ratio.
- (ii) Market price of share at optimum dividend payout ratio.
- (iii) P/E ratio, at which the dividend policy will have no effect on the price of share.
- (iv) Market price of share at this P/E ratio.
- (v) Market price of share using Dividend growth model.

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- (b) A company has current sale of ₹ 12 lakhs per year. The profit-volume ratio is 20% and post-tax cost of investment in receivables is 15%. The current credit terms are 1/10, net 50 days and average collection period is 40 days. 50% of customers in terms of sales revenue are availing cash discount and bad debt is 2% of sales.

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In order to increase sales, the company want to liberalize its existing credit terms to 2/10, net 35 days. Due to which, expected sales will increase to ₹ 15 lakhs. Percentage of default in sales will remain same. Average collection period will decrease by 10 days. 80% of customers in terms of sales revenue are expected to avail cash discount under this proposed policy.

Tax rate is 30%.

ADVISE, should the company change its credit terms. (Assume 360 days in a year.)

- (e) A company wants to invest in a project. This requires an initial investment of ₹ 4,50,000. Salvage value after estimated useful life of 5 years is ₹ 50,000. Other details of project are as follows :

5

	Worst case	Most likely	Best case
Contribution (₹)	3,30,000	5,40,000	6,31,250
Fixed cost (excluding depreciation) (₹)	75,000	1,50,000	2,00,000

Tax rate is 40%. Expected cost of capital of project is 12%. Ignore tax on capital gain.

- (i) Calculate NPV in each scenario.

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- (ii) The company is certain about most likely result in first two years, but uncertain about remaining period. In such a situation, calculate NPV expecting worst case scenario during next two years and best case scenario in the remaining period.

Years	1	2	3	4	5
$PVIF_{0.12,t}$	0.893	0.797	0.712	0.636	0.567
$PVIFA_{0.12,t}$	0.893	1.690	2.402	3.038	3.605

- (d) Following information is given for X Ltd. :

5

Total contribution (₹)	4,25,000
Operating leverage	3.125
15% Preference shares (₹ 100 each)	1,000
Number of equity shares	2,500
Tax rate	50%

Calculate EPS of X Ltd., if 40% decrease in sales will result EPS to zero.

2. Following information and ratios are given in respect of AQUA Ltd. for the year ended 31st March, 2023 :

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Current ratio	4.0
Acid test ratio	2.5
Inventory turnover ratio (based on sales)	6
Average collection period (days)	70
Earnings per share	₹ 3.5
Current liabilities	₹ 3,10,000
Total assets turnover ratio (based on sales)	0.96
Cash ratio	0.43
Proprietary ratio	0.48
Total equity dividend	₹ 1,75,000
Equity dividend coverage ratio	1.60

Assume 360 days in a year.

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You are required to complete Balance Sheet as on 31st March, 2023.

Balance Sheet as on 31st March, 2023

Liabilities	₹	Assets	₹
Equity share capital (₹ 10 per share)	xxx	Fixed assets	xxx
Reserves & surplus	xxx	Inventory	xxx
Long-term debt	xxx	Debtors	xxx
Current liabilities	3,10,000	Loans & advances	xxx
		Cash & bank	xxx
Total	xxx	Total	xxx

3. The following information pertains to CIZA Ltd. :

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Capital Structure :	₹
Equity share capital (₹10 each)	8,00,000
Retained earnings	20,00,000
9% Preference share capital (₹100 each)	12,00,000
12% Long-term loan	10,00,000
Interest coverage ratio	8
Income tax rate	30%
Price –earnings ratio	25

The company is proposed to take up an expansion plan, which requires an additional investment of ₹ 34,50,000. Due to this proposed expansion, earnings before interest and taxes of the company will increase by ₹ 6,15,000 per annum. The additional fund can be raised in following manner :

- By issue of equity shares at present market price, or
- By borrowing 16% Long-term loans from bank.

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You are informed that Debt-equity ratio (Debt / Shareholders' fund) in the range of 50% to 80% will bring down the price-earnings ratio to 22 whereas; Debt-equity ratio over 80% will bring down the price-earnings ratio to 18.

Required :

Advise which option is most suitable to raise additional capital so that the Market Price per Share (MPS) is maximised.

4. Capital structure of D Ltd. as on 31st March, 2023 is given below :

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Particulars	₹
Equity share capital (₹ 10 each)	30,00,000
8% Preference share capital (₹100 each)	10,00,000
12% Debentures (₹ 100 each)	10,00,000

- Current market price of equity share is ₹ 80 per share. The company has paid dividend of ₹ 14.07 per share. Seven years ago, it paid dividend of ₹ 10 per share. Expected dividend is ₹ 16 per share.
- 8% Preference shares are redeemable at 6% premium after five years. Current market price per preference share is ₹ 104.
- 12% debentures are redeemable at 20% premium after 10 years. Flotation cost is ₹ 5 per debenture.
- The company is in 40% tax bracket.
- In order to finance an expansion plan, the company intends to borrow 15% Long-term loan of ₹ 30,00,000 from bank. This financial decision is expected to increase dividend on equity share from ₹16 per share to ₹ 18 per share. However, the market price of equity share is expected to decline from ₹ 80 to ₹ 72 per share, because investors' required rate of return is based on current market conditions.

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- Q. 4. Determine the existing Weighted Average Cost of Capital (WACC) taking book value weights.
- (ii) Compute Weighted Average Cost of Capital (WACC) after the expansion plan taking book value weights.

Interest Rate	1%	2%	3%	4%	5%	6%	7%
$FVIF_{i,5}$	1.051	1.104	1.159	1.217	1.276	1.338	1.403
$FVIF_{i,6}$	1.062	1.126	1.194	1.265	1.340	1.419	1.501
$FVIF_{i,7}$	1.072	1.149	1.230	1.316	1.407	1.504	1.606

- 5 Four years ago, Z Ltd. had purchased a machine of ₹ 4,80,000 having estimated useful life of 8 years with zero salvage value. Depreciation is charged using SLM method over the useful life. The company want to replace this machine with a new machine. Details of new machine are as below :

- Cost of new machine is ₹ 12,00,000. Vendor of this machine is agreed to take old machine at a value of ₹ 2,40,000. Cost of dismantling and removal of old machine will be ₹ 40,000. 80% of net purchase price will be paid on spot and remaining will be paid at the end of one year.
- Depreciation will be charged @ 20% p.a. under WDV method.
- Estimated useful life of new machine is four years and it has salvage value of ₹ 1,00,000 at the end of year four.
- Incremental annual sales revenue is ₹ 12,25,000.
- Contribution margin is 50%.
- Incremental indirect cost (excluding depreciation) is ₹ 1,18,750 per year.

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- Additional working capital of ₹ 2,50,000 is required at the beginning of year one and ₹ 3,00,000 at the beginning of year three. Working capital at the end of year four will be nil.
- Tax rate is 30%.
- Ignore tax on capital gain.

Z Ltd. will not make any additional investment, if it yields less than 12%.

Advice, whether existing machine should be replaced or not.

Year	1	2	3	4	5
PVIF _{0.12,t}	0.893	0.797	0.712	0.636	0.567

6. (a) List out the conditions, framed by SEBI, which a company needs to fulfil in order to issue of bonus shares. **4**
- (b) "Permanent working capital and fluctuating (temporary) working capital, both are necessary to facilitate production and sales through the operating cycle." – Describe. **4**
- (c) Briefly explain concept of "Trading on Equity" in financial leverage analysis. **2**

OR

Discuss features of Secured Premium Notes. **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 following information relating to a particular financial year of a country is given below : 3

Particulars	Amount (₹ in crore)
Private final consumption expenditure	1620
Government final consumption expenditure	750
Net domestic fixed investment	500
Export	400
Import	440
Net Factor Income from Abroad	20
Net Indirect Taxes	100

You are required to compute the National Income of the country by using Expenditure Method.

- (b) Compute the Reserve Money from the following data relating to 31st March, 2023 : 2

Particulars	(₹ in crore)
Currency in Circulation	28637
Bank Deposits with RBI	5673
Post Office Deposits	400
Other Deposits with RBI	210

- (c) Explain the differences between Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI). 3

- (d) Describe the name and salient features of the fiscal policy for combating inflationary pressures in the economy. 2

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8. (a) (i) Following information is related to an economy :

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Autonomous consumption	₹ 1,000 crore
Marginal propensity to consume	0.8
Equilibrium level of income	₹ 10,000 crore

You are required to calculate the investment expenditure and consumption expenditure of the economy.

- (ii) Explain the government interventions for combating the market failures due to information problem.

2

- (b) (i) Compute M1 and M4 from the following data relating to 31st March, 2023 :

3

	(₹ in crore)
Notes in circulation	3,01,78,670
Circulation of rupee coins	6,48,902
Demand deposits with banks	1,41,31,650
Time Deposits with Banks	31,24,276
Cash in hand with banks	7,64,130
Other Deposits with RBI	3,98,048
Post Office Savings Deposits	2,02,684
Post Office National Savings Certificates (NSCs)	820

- (ii) Describe the exchange rate regime that is commonly used by the countries in real world.

2

9. (a) (i) Two Countries G and H are producing Sugar and Steel. The table given below shows the number of labour hours required to produce Sugar and Steel :

3

Commodity	Country G	Country H
One Unit of Sugar	6.0	2.0
One Unit of Steel	2.5	5.0

- (A) Compute the Productivity of labour in both countries in respect of both commodities.

- (B) Which country has absolute advantage of production of Steel ?

- (C) Which country has absolute advantage of production of Sugar ?

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- (ii) In an economy investments have been increased by ₹ 5,000 crore. The Marginal Propensity to Consume (MPC) is 0.82. You are required to compute the total increase in income and saving in the economy. 2
- (b) (i) Discuss the similarities between Fisher's Transaction approach and Cambridge Cash Balance approach 3
- (ii) Explain the following terms : 2
- Stagflation
 - Contagion Effect

10. (a) (i) Following information relating to a developing country is available to you : 3

Investment (I)	₹ 140 crore
Government Expenditure (G)	₹ 90 crore
Export (X)	₹ 100 crore
Consumption Function (C) =	$80 + 0.8 Y_d(\text{Disposable Income})$
Import (M) =	$50 + 0.09Y(\text{Income})$
Tax (T)	$0.2 Y(\text{Income})$

You are required to :

- (A) Find out equilibrium level of income (Y).
(B) Calculate foreign trade multiplier.
(C) Calculate net export if investment is increased by ₹ 30 crore.
- (ii) A customer of a bank deposits ₹ 50,000 in his bank. The bank is required to keep a cash reserve of 20 percent to meet the demand for cash by its depositors. 2
- Calculate the amount of bank deposits the banking system as a whole would generate on the basis of such deposit by the customer.

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- (b) (i) Is World Trade Organisation (WTO) better than General Agreement on Tariffs and Trade (GATT)? Explain with reasons. 3
- (ii) Write down the name of the terms used in the analysis of the effect of externalities in the following conditions: 2
- (A) The change in the cost to parties other than the producer or buyer of a good or service due to an additional unit of the good or service.
- (B) The change in society's total benefits associated with an additional unit of good or service.
- (C) The change in the benefit to parties other than the producer or buyer of a good or service due to an additional unit of the good or service.
- (D) The change in society's total cost brought about by an additional unit of a good or service.
11. (a) (i) Suppose in an economy, government expenditure is increased by ₹ 10 crore and taxes increased by ₹ 5 crore. Spending multiplier of the economy is 5. What impact would such increase have on GDP? 3
- (ii) Calculate the arbitrage for £2,00,000 from the following details: 2
- £1 = ₹100
- US \$ 1 = ₹80
- £1 = US \$ 1.30 in UK
- (b) (i) Repo injects liquidity into the system whereas the reverse repo absorbs the liquidity from the system. In the light of this statement briefly state the impact of high repo and reverse repo rate on a developing economy. 3

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(ii) What steps are to be taken by the Government as instruments of trade policy in the following cases ? **2**

(A) There is severe shortage of an essential product X in Indian domestic market due to its less production.

(B) The export of product Y is decreasing continuously due to cost and competition in the international market.

OR

Describe any two reasons for leakages which are responsible for decline in income. **2**
