Roll No. ....

Total No. of Questions – 11 Total No. of Printed Pages – 8

Time Allowed – 3 Hours Maximum Marks – 100

NSR

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 **Marks : 60**

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.

Marks

1. (a) Following information has been gathered from the books of Tram Ltd. the equity share of which is trading in the stock market at ₹ 14. **5**

Particulars	Amount (₹)
Equity Share Capital (face value ₹ 10)	10,00,000
10% preference Shares	2,00,000
Reserves	8,00,000
10% Debentures	6,00,000
Profit before Interest and Tax for the year	4,00,000
Interest	60,000
Profit after Tax for the year	2,40,000

Calculate the following :

(i) Return on Capital Employed

(ii) Earnings per share

(iii) PE ratio

(b) Door Ltd. is considering an investment of ₹ 4,00,000. This investment is expected to generate substantial cash inflows over the next five years. Unfortunately the annual cash flows from this investment is uncertain, but the following probability distribution has been established. 5

Annual Cash Flow (₹)	Probability
50,000	0.3
1,00,000	0.3
1,50,000	0.4

At the end of its 5 years life, the investment is expected to have a residual value of ₹ 40,000.

The cost of capital is 5%.

(i) Calculate NPV under the three different scenarios.

(ii) Calculate Expected Net Present Value

(iii) Advise Door Ltd. on whether the investment is to be undertaken.

Year	1	2	3	4	5
DF @ 5%	0.952	0.907	0.864	0.823	0.784

Marks

(c) Following figures and information were extracted from the company A Ltd. 5

Earnings of the company	₹ 10,00,000
Dividend paid	₹ 6,00,000
No. of shares outstanding	2,00,000
Price earnings Ratio	10
Rate of return on investment	20%

You are required to calculate :

(i) Current Market price of the share

(ii) Capitalisation rate of its risk class.

(iii) What should be the optimum payout ratio ?

(iv) What should be the market price per share at optimal payout ratio ? (use Walter's Model)

(d) A company has ₹ 1,00,000 available for investment and has identified the following four investments in which to invest. 5

Project	Investment (₹)	NPV (₹)
C	40,000	20,000
D	1,00,000	35,000
E	50,000	24,000
F	60,000	18,000

You are required to optimize the returns from a package of projects within the capital spending limit if

(i) The projects are independent of each other and are divisible.

(ii) The projects are not divisible.

Marks

2. The Balance Sheet of Gitashree Ltd. is given below : 10

Liabilities		₹
Shareholders' fund		
Equity share capital of ₹ 10 each	₹ 1,80,000	
Retained earnings	₹ 60,000	2,40,000
Non-current liabilities 10% debt		2,40,000
Current liabilities		1,20,000
		6,00,000
Assets		
Fixed Assets		4,50,000
Current Assets		1,50,000
		6,00,000

The company's total asset turnover ratio is 4. Its fixed operating cost is ₹ 2,00,000 and its variable operating cost ratio is 60%. The income tax rate is 30%.

Calculate :

(i) (a) Degree of Operating leverage.

(b) Degree of Financial leverage.

(c) Degree of Combined leverage.

(ii) Find out EBIT if EPS is (a) ₹ 1 (b) ₹ 2 and (c) ₹ 0.

3. Slide Ltd. is preparing a cash flow forecast for the three months period from January to the end of March. The following sales volumes have been forecasted : 10

	December	January	February	March	April
Sales (units)	1800	1875	1950	2100	2250

Marks

Selling price per unit is ₹ 600. Sales are all on one month credit. Production of goods for sale takes place one month before sales. Each unit produced requires two units of raw materials costing ₹ 150 per unit. No raw material inventory is held. Raw materials purchases are on one month credit. Variable overheads and wages equal to ₹ 100 per unit are incurred during production and paid in the month of production. The opening cash balance on 1st January is expected to be ₹ 35,000. A long term loan of ₹ 2,00,000 is expected to be received in the month of March. A machine costing ₹ 3,00,000 will be purchased in March.

(a) Prepare a cash budget for the months of January, February and March and calculate the cash balance at the end of each month in the three months period.

(b) Calculate the forecast current ratio at the end of the three months period.

4. Loft Ltd. is considering an investment in new technology that will reduce operating costs through increasing efficiency. The new technology will cost ₹ 5,00,000 and have a four year life at the end of which it will have a residual value of ₹ 50,000. **10**

An annual license fee of ₹ 52,000 is payable to operate the machine. The purchase can be financed by 10% loan payable in equal installments at the end of each of four years. The depreciation is to be charged as per reducing balance method. The rate of depreciation is 25% per annum.

Alternatively Loft Ltd. could lease the new technology. The Company would pay four annual lease rentals of ₹ 1,90,000 per year. The annual lease rentals include the cost of license fee. Tax rate is 30%. Compute the incremental cash flows under each option. What would be the appropriate rate at which these cash flows have to be discounted ? Discount the incremental cash flows under each option and decide which option is better – buy or lease ?

Year	1	2	3	4
DF @7%	0.935	0.873	0.816	0.763
DF @10%	0.909	0.826	0.751	0.683

Marks

5. A Company wants to raise additional finance of ₹ 5 crore in the next year. The company expects to retain ₹ 1 crore earning next year. Further details are as follows : 10

(i) The amount will be raised by equity and debt in the ratio of 3 : 1.

(ii) The additional issue of equity shares will result in price per share being fixed at ₹ 25.

(iii) The debt capital raised by way of term loan will cost 10% for the first ₹ 75 lakh and 12% for the next ₹ 50 lakh.

(iv) The net expected dividend on equity shares is ₹ 2.00 per share. The dividend is expected to grow at the rate of 5%.

(v) Income tax rate is 25%.

You are required :

(a) To determine the amount of equity and debt for raising additional finance.

(b) To determine the post tax average cost of additional debt.

(c) To determine the cost of retained earnings and cost of equity.

(d) To compute the overall weighted average cost of additional finance after tax.

6. (a) Briefly explain the three finance function decisions. 3

(b) Explain the steps while using the equivalent annualized criterion. 3

(c) Explain the significance of Cost of Capital . 4

OR

Briefly describe any four sources of short term finance. 4

SECTION-B

Marks : 40

Question No. 7 is compulsory.
Answer any **three** questions from the rest.
Working notes should form part of the respective answers.

7. (a) Compute the amount of subsidies from the following data : 3

GDP at market price (₹ in crores)	7,79,567
Indirect Taxes (₹ in crores)	4,54,367
GDP at factor cost (₹ in crores)	3,60,815

(b) What do you mean by 'Global Public goods'. Explain in brief. 2

(c) Compute reserve money from the following data published by RBI : 3

	(₹ in crores)
Net RBI credit to the government	8,51,651
RBI Credit to the commercial sector	2,62,115
RBI's claim on Banks	4,10,315
Government's Currency liabilities to the public	1,85,060
RBI's net foreign assets	72,133
RBI's net non-monetary liabilities	68,032

(d) Explain the term 'real exchange rate'. 2

8. (a) (i) Describe the problems in administering an efficient pollution tax. 3

(ii) Explain the open market operations conducted by RBI. 2

(b) (i) Explain the key features of modern theory of international trade. 3

(ii) Distinguish between 'pump priming' and 'compensatory spending'. 2

9. (a) The price index for exports of Bangladesh in the year 2018-19 (based on 2010-11) was 233.73 and the price index for imports of it was 220.50 (based on 2010-11) 5

(i) What do these figures mean ?

(ii) Calculate the index of terms of trade for Bangladesh.

(iii) How would you interpret the index of terms of trade for Bangladesh ?

Marks

(b) (i) Explain the consumption function using a suitable table and diagram. 3

(ii) Distinguish between positive and negative externalities. 2

10. (a) (i) Explain the circular flow of income in an economy. 3

(ii) How does the WTO agreement ensure market access ? 2

(b) (i) How does a discretionary fiscal policy help in correcting instabilities in the economy ? 3

(ii) Explain 'Reverse Repo Rate'. 2

11. (a) (i) Compute NNP at factor cost or national income from the following data using income method : 3

	(₹ in crores)
Compensation of employees	3,000
Mixed income of self-employed	1,050
Indirect taxes	480
Subsidies	630
Depreciation	428
Rent	1,020
Interest	2,010
Profit	980
Net factor income from abroad	370

(ii) Compute credit multiplier if the Required Reserve Ratio is 10% and 12.5% for every ₹ 1,00,000 deposited in the banking system. What will be the total credit money created by the banking system in each case ? 2

(b) (i) Explain the neo-classical approach to demand for money. 3

(ii) What is 'Recessionary Gap' ? 2

OR

What is meant by 'Bound tariff' ? 2