UNIVERSITY OF RUHUNA
FACULTY OF MANAGEMENT AND FINANCE
Bachelor of Business Administration Degree Programme 1000 Level Second Semester

End Examination - March 2022

Academic Year 2020/2021

BBA 12043: Introductory Finance
The question paper contains six (06) questions
Answer only five (5) questions
Calculators are permitted. **Duration: Three (03) hours.**

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01. (A) What is the meaning of Finance? Briefly explain.

(02 Marks)

(B) "The basic objective of Financial Management is Wealth maximization and not profit maximization".

Briefly explain this statement giving reasons.

(02 Marks)

(C) Calculate the present value for the following cash flows stream using a discount rate 14%.

(i) Rs. 300,000 cash flow 03 years from now.
(ii) Rs. 75,000 cash flow at the end of each of the next 6 years.
(iii) Rs. 50,000 cash flow at the beginning of each of the next 5 years.

(03 Marks)

(D) The following is the information of three investments.

Investment	Initial principal (Rs.)	Interest rate	No. of years	Compounding periods in months
P	400,000	16%	6	12
Q	360,000	10%	5	6
R	240,000	12%	4	4

Required:
Calculate the future value for each investment at the end of periods.

(03 Marks)

(E) A person obtains a Rs. 02 million housing loan at 12% interest rate per annum and compounded annually. Assume period of the loan is 04 years and equal installment payments are made at the end of each year.

Required:

(i) Determine the annual loan installment.
(ii) Prepare the loan amortization schedule.

(04 Marks)
(Total Marks 14)

02. (A) Briefly describe the factors, which determine the working capital needs of a company.

(03 Marks)

(B) The following information has been extracted from the books of New Lanka PLC as at 31st March 2020/2021.

	As at 31st March 2020 (Rs. "000")	**As at 31st March 2021 (Rs. "000")**
Inventories		
Raw materials	5400	6300
Work-In-Process	1800	3600
Finished goods	4050	3600
Accrual manufacturing wages and salaries	450	900
Accrual other manufacturing expenses	630	495
Account receivables	4500	6750
Trade creditors	1800	3600

The following transactions have occurred during the year ended 31st March 2021.

	Rs. "000"
Raw materials purchases	18,000
Machine depreciation	1,500
Sales	36,000
Paid manufacturing wages and salaries	1,800
Paid other manufacturing expenses	2,250

You may assume 360 working days in a year and all purchases and sales are on credit basis.

Required:

Determine the gross operating cycle (GOC) and net operating cycle (NOC).

(06 Marks)

(C) Kumarika PLC sells goods in the home market and earns a gross profit of 20% on sales.

The company's annual transactions are as follows.

	Rs. "000"
Credit sales	11,250
Raw materials purchases on credit	4,500
Raw materials consumed	4,050
Manufacturing wages	3,600
Other manufacturing expenses	4,500
Administration and other expenses	1,170
Machine depreciation	450

The additional information is as follows.

1. Credit allowed to customers is 01 month and credit given by suppliers of raw materials is 02 months.
2. Manufacturing wages are paid ½ month in arrears and other manufacturing & administration expenses are paid 01 month in arrears.
3. The Company wishes to keep two months inventory of raw materials and also of finished goods.
4. The company believes in keeping cash of Rs. 500,000

Required:

Prepare a statement showing working capital requirement of the company.

(05 Marks)

(Total Marks 14)

03. (A) A firm has expected annual net operating income of Rs.150, 000. The cost of equity capital is 12% and the firm has a debt capital of Rs. 800,000 bearing 6% rate of interest.

Required:

(i) Calculate the value of the firm using net income approach

(ii) If the firm employed a debt capital of Rs. 01 million instead of Rs. 800,000. Calculate the value of the firm under net income approach.

(02 Marks)

(B) Nandana PLC with a net operating income of Rs. 480,000 is attempting to evaluate a number of capital structures as follows.

Capital Structures	**Debt Capital in capital structure (Rs.)**	**Debt capital rate (kd%)**	**Equity capital rate (ke%)**
A	550,000	10	12.5
B	590,000	10	12.5
C	720,000	11	13.5
D	850,000	12	15.0

Required:

State with reasons which of the capital structure will you recommended.

(05 Marks)

(C) Nadun Company provides the following three financial alternatives for an expansion of their plant capacity. Estimated capital requirement is Rs. 600,000 and corporate tax rate is 40%.

1. The company may issue only ordinary shares at Rs.12 per share.
2. The company may issue 25,000 ordinary shares at Rs.12 per share and 6% debentures of Rs.300, 000.
3. The company may issue 40,000 ordinary shares at Rs 12 per share and 8% preference share capital of Rs.120, 000.

The following are the estimates of the earnings from the new plant capacity.

Earnings before interest and tax (EBIT) **Rs.**	12,000	24,000	48,000	72,000

Required:

(i) Calculate the earnings per share for each of financial alternatives.

(03 Marks)

(ii) Which alternatives would you recommend and why?

(01 Mark)

(iii) Calculate the indifference points between each of the three financial alternatives

(03 Marks)
(Total Marks 14)

04. (A) Briefly explain the different approaches to the calculation of cost of equity capital.

(02 Marks)

(B) A company has issued 500,000 ordinary shares at a rate of Rs. 80 per share and the current market price of a share is Rs. 96. During the financial year company has earned Rs. 12.5 million out of which Rs. 05 million has been paid as dividends. If the return on equity ratio of the company is 15%.

Required:

Calculate the dividend growth rate and cost of equity capital.

(02 Marks)

(C) The following capital structure has been extracted from the statement of financial position as at 31st December 2021 of a Company.

	Rs. million
Stated ordinary share capital (Rs.50 per share)	3,000
Preference share capital (Rs. 40 per share)	2,000
Debentures (Rs.100 per debenture)	1,000

The ordinary shares of the company have a market value of Rs. 66.00 per share and the paid dividend per ordinary share was Rs. 6.00, which expected to grow at constant rate of 10%. The 15% preference shares of the company are irredeemable and have a market value of Rs. 60.00 per share. The 15% debentures are redeemable at a 10% premium after 10 years. The market value of debenture is Rs. 105.00. The Company pays tax at an annual rate of 30%.

Required:

Calculate the weighted average cost of capital (WACC) of the Company using market value.

(07 Marks)

(D) The following information relate to the debentures of A, B and C companies.

Company	*Face value of debentures (Rs. Million)*	*Annual rate of interest*	*Required rate of return*	*Interest payable period (Months)*	*Maturity period (Years)*
A	05	12%	14%	06	10
B	08	15%	15%	04	08
C	07	16%	12%	03	07

Required:

(i) Calculate the present value of each debenture.

(ii) Calculate the present value, if all debentures are payable at the premium of 10% after maturity period.

(03 Marks)

(Total Marks 14)

(05). (A). Does diversification reduce the risk of investment? Briefly explain with an example.

(02 Marks)

(B). A company is planning to invest its additional funds in share market. Two securities as "R" and "S" are available for that. The company can invest in either of them or in a portfolio with some of each, the company estimates probability distributions of returns applicable for securities "R" and "S" as follows.

Rate of return (k - %)		**Probabilities (P -%)**
Security R	**Security S**	
15	10	30
20	20	30
25	30	40

Required:

Construct a table showing expected rate of return and standard deviation of the portfolio for portfolios with W_A = 100%, 70%, 30% and 00% and identify the efficient set of portfolio.

(W_A = Percentage of individual investment in security A)

(10 Marks)

(C). The standard deviations of share "P" and market "M" are 0.44 and 0.48 respectively and correlation coefficient between share "P" and market "M" is 0.67.

Required:

(i) Calculate the covariance between share "P" and market "M".
(ii) Calculate the Beta coefficient for share "P".

(02 Marks)
(Total Marks 14)

(06).(A) Briefly explain the nature and importance of capital budgeting decisions in an organization.

(03 Marks)

(B) Techno Lanka Company is a laptop computer manufacturing company. It is considering the produce of mini-laptop computers. These computers will be targeted at the education market with the specific aim encouraging university students to enhance IT Knowledge. Laptop computer sales are expected to be as follows.

Year	01	02	03	04	05
Sales (Units)	1,300	1,400	1,700	1,900	1,600

The company research and development division has already spent Rs. 02 million in developing the product. A further investment of Rs.12 million in a new manufacturing facility will be required at the beginning of the year 01. . It is expected that the new manufacturing facility could be sold for cash Rs.2.5 million at the end of the project. The manufacturing facility will be depreciated over 05 years using straight-line method.

The project will require an investment of Rs.1.5 million in working capital at the beginning of the project and this can be recovered at the end of the 5^{th} year. The selling price of the new laptop computer in year 01 will be Rs.22, 000 and the variable cost per laptop computer will be Rs.14, 000.

The selling price and variable cost per laptop computer are remain constant during lifetime of the project. The total fixed cost per year Rs. 9.9 million including depreciation. The company's finance director has provided the following information.

1. The Government provides 20% capital allowance per annum to this type of projects.
2. Tax rate is 30% of taxable profits and tax is payable in the year in which it arises.
3. The cost of capital of 10% per annum is used to evaluate this type of projects.

Required:

Evaluate whether the company should go ahead with the investment project. You should use net present value (NPV) and internal rate of return (IRR) as the basis of your evaluation.

(11 Marks)
(Total Marks 14)

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