



UNIVERSITY OF RUHUNA  
FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration Degree Programme 1000 Level Semester II

End Examination February/March 2021

Academic Year 2019/2020

BBA 12043 – Introductory Finance

Duration: Three hours

The Question Paper contains six (06) questions.

Answer only five (05) questions.

Calculators are allowed.

(01).

- A. "Finance is one of the key functions in all kinds of economic activities in the modern economy". Briefly explain this statement. (02 Marks)
- B. How should the finance function of an enterprise be organized? (02 Marks)
- C. Kalpana's father has promised to give Kalpana Rs.01 million in cash on his 25<sup>th</sup> birthday. Today is his 20<sup>th</sup> birthday and the annual interest rate is 10%.

**Required:**

- i. If father decides to make annual payments at the end of each year, how much will be the value of annuity?
- ii. If father decides to make annual payments at the beginning of each year, how much will be the value of annuity?
- iii. If father decides to invest a lump sum in the account today and let it compound annually, how much will the lump sum be? (03 Marks)

- D. Kavindu has an opportunity of receiving following cash flows at 10% rate of interest.

Year	Cash flows (Rs.)
1	100,000 at end of the year
2	200,000 at middle of the year
3	300,000 at beginning of the year

**Required:**

Calculate the present value of this cash flows stream.

(03 Marks)

- E. Kavisha has obtained a housing loan of Rs. 03 million from NSB for 04 years. The loan requires 10% interest rate per annum and loan installments are payable annually.

**Required:**

Prepare the loan amortization schedule.

(04 Marks)

**(Total Marks 14)**

(02).

- A. Define working capital and distinguish between permanent and temporary working capital. (02 Marks)
- B. Briefly explain four factors affecting the working capital needs of an organization. (02 Marks)
- C. The following information has been extracted from the books of Lahiru Company.

	Rs.'000
Credit sales for the year	64,800
Raw materials purchase on credit for the year	38,880
Other manufacturing cost for the year	5,760

	As at 01/01/ 2020 (Rs.'000)	As at 31/12/ 2020 (Rs.'000)
Trade receivables (Debtors)	7,200	10,800
Trade payables (Creditors)	2,880	5,760
Raw materials inventory	8,640	10,080
Work – In – Progress inventory	2,880	5,760
Finished goods inventory	12,000	12,000
Payable other manufacturing cost	1,800	1,400

**Required:**

If working days in a year is 360, calculate the gross operating cycle (GOC) and net operating cycle (NOC).

(06 Marks)

- D. The following are the transactions of Lashantha Company for the year ended 31<sup>st</sup> December 2020.

	Rs. million
Credit sales	1,500
Raw materials purchase on credit	600
Materials consumed	540
Manufacturing expenses	1,080
Other expenses	156

**The following additional information is available.**

1. The company earns a gross profit of 25% on cost.
2. Cash collection period from the customers is 01 month and suppliers given 02 months credit period for raw materials.
3. Manufacturing and other expenses are paid 01 month in arrears.
4. The company wishes to keep one month inventory of raw materials and of finished goods.
5. The company's expected cash balance is Rs. 10 million.

**Required:**

Calculate the working capital requirement of the company.

(04 Marks)

**(Total Marks 14)**

**(03).**

A. List four assumptions of the net operating income (NOI) approach.

(02 Marks)

B. Madushanka Company is attempting to evaluate several possible capital structures given below.

Possible capital structure	Value of debt capital (Rs. '000)	Cost of equity capital rate (ke - %)	Cost of debt capital rate (kd - %)
PCS 13	54,000	11.60	04.60
PCS 14	72,000	12.40	05.00
PCS 15	90,000	13.50	05.60

**Required:**

If net operating income of Rs. 18 million, state with reasons which of the above capital structures will you recommend?

(05 Marks)

C. Maheshi Company needs Rs. 200 million for construction of new factory. Corporate tax rate is 30%. The following two financial plans are feasible.

**Plan 1:** The company may issue 500,000 ordinary shares at Rs. 400 per share.

**Plan 2:** The company may issue 250,000 ordinary shares at Rs. 400 per share and 500,000 debentures at Rs 200 of the interest rate of 09%.

If the company's earnings before interest and taxes (EBIT) are (a) Rs. 20 million, (b) Rs 40 million & (c) Rs 60 million for three possible scenarios.

**Required:**

- i. Calculate the earnings per share for scenarios. (a), (b) and (c) under each of the two financial plans.
- ii. Which plan would you recommend and why?
- iii. Calculate the indifference point between plan 01 and 02,

(07 Marks)

**(Total Marks 14)**

(04).

A. Define cost of capital and explain its significance in financial decision making.

(03 Marks)

B. The following information has been extracted from the statement of financial position as at 31<sup>st</sup> March 2020 of the Nimesh Company.

	<b>Rs. million</b>
Ordinary share capital (100 Million shares)	4,800
Retained earnings	1,800
20% Preference share capital (180 Million shares)	3,600
18% Debentures (30 Million debentures)	3,000

The ordinary shares of the company have a market value of Rs. 84.00 per share and the expected dividend per ordinary share is Rs. 8.40 which expected to grow at constant rate of 10%. The preference shares of the company are irredeemable and have a market value of Rs. 40.00 per share. The 18% debentures are redeemable at a 10% premium after 05 years. The market value of debenture is Rs. 112.00. The Company pays tax at an annual rate of 30%.

**Required:**

- i. Calculate the cost of equity capital.
- ii. Calculate the cost of preference share capital.
- iii. Calculate the cost of debt capital.
- iv. Calculate the weighted average cost of capital (WACC) of the Company using market value.

(07 Marks)

C. Nimesha Company has issued 10,000 preference shares at Rs.30.00 per share. The preference share carried a dividend of Rs. 4.00 per share. The required rate of return on preference share is 10% and maturity period is 5 years.

**Required:**

Calculate the present value of preference share capital.

(02 Mark)

D. Nethsara Company has issued 5,000 debentures at 12%, Rs.100.00 per debenture. The required rate of return on debenture is 10% and maturity period is 5 years. The debentures are payable at premium of 10% after maturity period.

**Required:**

Calculate the present value of debentures.

(02 Marks)

**(Total Marks 14)**

The selling price of the new smart phone will be Rs.40,000 and the variable cost per new smart phone will be Rs. 20,000. The total fixed costs per year will be Rs. 225 million including depreciation. Finance manager of the company has provided the following additional information.

1. Sales of these smart phones are expected to be as follows.

Year	01	02	03	04
Sales (units)	18,000	22,000	24,000	12,000

2. The government provides 25% capital allowance per annum to this type of project.
3. Tax rate is 30% on taxable profits and the tax is payable in the year in which it arises.
4. The cost of capital of 10% per annum is used to evaluate projects of this type.

**Required:**

Calculate the net present value (NPV) and payback period (PBP) of the project and evaluate whether the Company should go ahead with the new project.

(11 Marks)

(Total Marks 14)

**Present Value and Future Value Factors**

Year	PVF:10%	PVF:20%	PVAF:10%	PVAF:20%	FVF:10%	FVAF:10%
1	0.909	0.833	0.909	0.833	1.100	1.100
2	0.826	0.694	1.735	1.527	1.210	2.100
3	0.751	0.578	2.486	2.106	1.331	3.310
4	0.683	0.482	3.169	2.588	1.464	4.641
5	0.620	0.401	3.790	2.990	1.610	6.105

PVF: Present Value Factors

PVAF: Present Value Annuity Factors

FVF: Future Value Factors

FVAF: Future Value Annuity Factors

(05).

- A. Briefly explain systematic and unsystematic risk using examples. (03 Marks)
- B. A portfolio consists of two investments namely "A" and "B" with the following information.
1. Investment "A" has the following rate of returns with their probabilities.

Rate of return (k) - %	10	20	30
Probabilities (p) - %	40	30	30

2. Investment "A" and "B" are weighted in 60% and 40% respectively on the portfolio.
3. Expected rate of return of the portfolio is 19.8%.

**Required:**

- Calculate the expected rate of return of the investment "A" and "B".
- Calculate the risk (standard deviation) of investment "A".
- If the variance of asset "B" is 0.0039 and co-variance between assets "A" and "B" is 0.003, calculate the portfolio risk (standard deviation).
- Calculate coefficient of variation of the portfolio.

(08 Marks)

- C. Security A and market M has the following information.

- Standard deviations of security A and market M are 36% and 42% respectively.
- Correlation coefficient between security A and market M is 0.88.

**Required:**

- Calculate the covariance between security A and market M.
- Calculate the Beta coefficient for security A.

(03 Marks)

(Total Marks 14)

(06).

- A. Briefly explain the key steps in capital budgeting process.

(03 Marks)

- B. Oshandi Company is considering the production of new smart phone. For that the company's research and development division has already spent Rs. 03 million in developing the new smart phone. Further investment of Rs. 600 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 Rs. 100 million, at the end of the project. The manufacturing facility will be depreciated over 04 years using the straight-line method. In addition, the project will require an investment of Rs. 100 million in working capital at the beginning of the project and this can be recovered at the end of the 4<sup>th</sup> year.