

Index Number: \_\_\_\_\_

**Eastern University, Sri Lanka**  
**Faculty of Commerce and Management**  
**Final Year First Semester Examination in Bachelor of Business Administration**  
**2017/2018 (January 2020) (Proper / Repeat)**  
**MGT 4033 – Financial Management**

**Note:**

- \* Calculator allowed
- \* PVIF, FVIF, PVIFA, PVIFAD tables allowed

**Answer all Questions**

**Time Allowed: 03 Hours**

**PART – I**

**Underline the most suitable answer in the paper itself.**

1. Time value of money facilitates comparison of cash flows occurring at different periods by
  - a) Compounding all cash flows to a common point of time.
  - b) Discounting all cash flows to a common point of time.
  - c) Using either a or b.
  - d) Neither a nor b.
  
2. A firm has a Degree of Financial Leverage (DFL) of 3.5 at X dollars. What does this tell us about the firm?
  - a. If sales rise by 3.5% at the firm, then EBIT will rise by 1%.
  - b. If EBIT rises by 3.5% at the firm, then EPS will rise by 1%.
  - c. If EBIT rises by 1% at the firm, then EPS will rise by 3.5%.
  - d. If sales rise by 1% at the firm, then EBIT will rise by 3.5%.
  
3. When the market's required rate of return for a particular bond is much less than its coupon rate, the bond is selling at:
  - a. A premium.
  - b. Cannot be determined without more information.
  - c. A discount.
  - d. Face value.
  
4. Finance function involves
  - a. Procurement of finance only.
  - b. Procurement and effective utilization of funds.
  - c. Expenditure of funds only.
  - d. Safe custody of fund only.
  
5. Higher operating leverage is related to the use of additional \_\_\_\_\_.
  - a. Fixed costs.
  - b. Variable costs.
  - c. Debt finance.
  - d. Common equity finance.

6. The point of tangency between risk return indifference curves and efficient frontier high
  - a. Optimal portfolio.
  - b. Sub-optimal portfolio.
  - c. Efficient portfolio.
  - d. None of the above.
  
7. A firm is considering three different financing alternatives -- debt, preferred stock, common equity. The firm has created an EBIT-EPS chart that shows several indifference points. What does each indifference point show the firm?
  - a. The level of EBIT that generates identical EPS under two alternative financing plans.
  - b. The level of sales that generates identical EBIT and EPS figures.
  - c. It shows the level of EBIT and EPS at which DFL is identical under two alternative financing plans.
  - d. None of the above.
  
8. Which of the following best describes liquidation value?
  - a. The price a security "ought to have" based on all factors bearing on valuation.
  - b. The amount a firm could be sold for as a continuing operating business.
  - c. The amount of money that could be realized if an asset or a group of assets separately from its operating organization.
  - d. The market price at which an asset trades.
  
9. To compute the required rate of return for equity in a company using the CAPM, it is not necessary to know all of the following EXCEPT:
  - a. The risk-free rate.
  - b. The beta for the firm.
  - c. The earnings for the next time period.
  - d. The market return expected for the time period.
  
10. Which of the following is not a recognized approach for determining the cost of equity?
  - a. Dividend discount model approach.
  - b. Before-tax cost of preferred stock plus risk premium approach.
  - c. Capital-asset pricing model approach.
  - d. Before-tax cost of debt plus risk premium approach.

11. What is the overall (weighted average) cost of capital in the following situation? The firm has \$10 million in long-term debt, \$2 million in preferred stock, and \$8 million in common equity - all at market values. The before-tax cost for debt, preferred stock, and common equity forms of capital are 8%, 9%, and 15%, respectively. Assume a 40% tax rate.
- a. 6.40%
  - b. 6.54%
  - c. 9.30%
  - d. 10.90%
12. Two firms that are virtually identical except for their capital structure are selling in the market at different values. According to Modigliani and Miller,
- a. One will be at greater risk of bankruptcy.
  - b. The firm with greater financial leverage will have the higher value.
  - c. This proves that markets cannot be efficient.
  - d. This will not continue because arbitrage will eventually cause the firms to sell at the same value.
13. A risk associated with project and way considered by well diversified stockholder is classified as,
- a. Expected risk.
  - b. Beta risk.
  - c. Industry risk.
  - d. Returning risk.
14. Financial Management is mainly concerned with \_\_\_\_\_.
- a. All aspects of acquiring and utilizing financial resources for firms activities.
  - b. Arrangement of funds.
  - c. Efficient Management of every business.
  - d. Profit maximization.
15. According to the capital-asset pricing model (CAPM), a security's expected (required) return is equal to the risk-free rate plus a premium
- a. Equal to the security's beta.
  - b. Based on the unsystematic risk of the security.
  - c. Based on the total risk of the security.
  - d. Based on the systematic risk of the security.
16. Risk of an individual financial asset refers to variability of its returns around its mean returns.
- a. True.
  - b. False.

17. There is no difference between the capital market line and security market line as both terms are same.
- a. True. b. False.
18. The firm should use its weighted average cost of capital (WACC) to discount the cash flows of all projects.
- a. True. b. False.
19. The debt ratio is a perfect measure to examine financial risk.
- a. True. b. False.
20. Cash flow calculations require adding back depreciation to net income since it is a non-cash expense.
- a. True. b. False.

(20 x 01 Mark = 20)



**PART - II**

Q1. I) Describe the relationship between finance and economics and explain why the finance manager should possess a basic knowledge of economics. (05 Marks)

II) Dunn Inc. owns and operates a number of hardware stores in the New England region. Recently, the company has decided to locate another store in a rapidly growing area of Maryland. The company is trying to decide whether to purchase or lease the building and related facilities.

**Purchase:** The Company can purchase the site, construct the building, and purchase all store fixtures. The cost would be \$1,850,000. An immediate down payment of \$400,000 is required, and the remaining \$1,450,000 would be paid off over 5 years at \$350,000 per year (including interest payments made at end of year). The property is expected to have a useful life of 12 years, and then it will be sold for \$500,000. As the owner of the property, the company will have the following out-of-pocket expenses each period.

Property taxes (to be paid at the end of each year)	\$40,000
Insurance (to be paid at the beginning of each year)	27,000
Other (primarily maintenance which occurs at the end of each year)	<u>16,000</u>
	<u>\$83,000</u>

**Lease:** First National Bank has agreed to purchase the site, construct the building, and install the appropriate fixtures for Dunn Inc. if Dunn will lease the completed facility for 12 years. The annual costs for the lease would be \$270,000. Dunn would have no responsibility related to the facility over the 12 years. The terms of the lease are that Dunn would be required to make 12 annual payments (the first payment to be made at the time the store opens and then each following year). In addition, a deposit of \$100,000 is required when the store is opened. This deposit will be returned at the end of the twelfth year, assuming no unusual damage to the building structure or fixtures.

Which of the two approaches should Dunn Inc. follow? (Currently, the cost of funds for Dunn Inc. is 10%.) (15 Marks)

**(Total 20 Marks)**

Q2. I) Suppose two securities have a correlation of +1.0. Can a portfolio of these securities reduce risk? Explain. (04 Marks)

II) Balaji Ltd. has the following capital structure which is considered to be optimum as on 31<sup>st</sup> March 2019.

Component	Rs.
15% Debenture	80,000
11% Preference Shares	60,000
Equity (10,000 shares)	210,000
	350,000

The company shares have a market price of Rs. 23.60. Next year dividend per share is 50% of year 2019 EPS. The following is the trend of EPS for the preceding 10 years which is expected to continue in future

Year	EPS (Rs)	Year	EPS (Rs)	Year	EPS (Rs)	Year	EPS (Rs)
2010	1.00	2013	1.33	2016	1.77	2019	
2011	1.10	2014	1.46	2017	1.95		
2012	1.21	2015	1.61	2018	2.15		

The company issued new debentures carrying 16% rate of interest and the current market price of debenture is Rs. 96. Preference shares Rs. 9.20 (with annual dividend of Rs. 1.1 per share) are also issued. The company is in tax bracket of 50%.

- a) Calculate after tax:
  - i. Cost of new debt (02)
  - ii. Cost of new preference shares (02)
  - iii. New equity share (consuming new equity from retained earnings) (03)
- b) How much can be spent for capital investment before new ordinary shares must be issued? Assuming that retained earnings for next year's investment are 50% of 2019. (04)
- c) What will the marginal cost of capital when the fund exceeds the amount calculated in (b) assuming new equity is issued at Rs. 20 per share? (05)

(Total 20)

Q3. I) Discuss the assumptions of Modigliani and Miller (MM) hypothesis and the criticism of the hypothesis. (05)

II) The Jubilee Hostel of the University Calicut (JHUC) has residence strength of 400 students. In addition to other basic amenities, the JHUC provides hot water during the 3 months winter season: November to January. It has two boilers which operate alternatively during the morning and evenings which use kerosene oil as energy source.

The operational duration of one boiler in the morning and evenings for the months of November and January is three and two hours respectively. Due to winter vacation in December, some students go home. The operational duration of the boilers is 1.5 hours in the morning and evening. The average quantity of fuel used per hour is 10 liters. The cost of the fuel is Rs. 15/liter.

One worker operates the boiler in the morning and evenings. The daily labour cost is Rs. 100. The total maintenance costs amount to Rs. 6,000.

In keeping with the trend to utilize non-conventional energy sources, the JHUC wishes to setup solar heater to convert solar energy to heat energy. The operating and financial parameters of the proposal have been worked out as detailed under:

- Solar heaters required, 10 @ Rs. 15,000 each
- Per heater installation cost Rs. 2,000
- Annual total maintenance cost Rs. Rs. 3,000
- Salvage value of the existing boilers, Rs. 5,000
- Useful life, 10 years with no salvage value

Is the proposal financially viable if the required rate of return is 12%. You can make other assumptions if necessary.

(15 Marks)

**(Total 20 Marks)**

Q4. I) Which is a better measure of risk if assets have different expected returns: (1) the standard deviation or (2) the coefficient of variation? Why? (03 Marks)

II) Illustrate the relationship and its impact between the required return and coupon interest rate on bond values. (05 Marks)

III) Ten years ago Video Toys began manufacturing and selling coin-operated arcade games. Dividends are currently Rs. 1.50 per share, having grown at a 15% compound annual rate over the past 5 years. The growth rate is expected to be maintained for the next 3 years, after which dividends are expected to grow at half that rate for 3 years. Beyond that time, Video Toys's dividends are expected to grow at 5% per year. What is the current value of a share of Video Toys common stock if your required rate of return is 18%. (12 Marks)

**(Total 20 Marks)**

Formulas:

$$B_0 = \frac{INT}{k_d}$$

$$P_0 = \sum_{t=1}^n \frac{PDIV_t}{(1+k_p)^t} + \frac{P_n}{(1+k_p)^n}$$

$$P_0 = \frac{PDIV}{k_p}$$

$$k_e = \frac{DIV_1}{P_0} + g$$

$$P_0 = \sum_{t=1}^n \frac{DIV_t}{(1+k_e)^t} + \frac{P_n}{(1+k_e)^n}$$

$$P_0 = \frac{DIV_1}{k_e - g}$$

$$P_0 = \sum_{t=1}^n \frac{DIV_0(1+g)^t}{(1+k_e)^t} + \sum_{t=n+1}^{\infty} \frac{DIV_t}{(1+k_e)^t}$$