

**CMA JANUARY 2022 EXAMINATION  
 INTERMEDIATE LEVEL II  
 FINANCIAL MANAGEMENT**

Course Code	: EF232	Total Marks	: 100
Reading Time	: 15 minutes	Writing Time	: 180 minutes

**Instructions to Candidates**

- You **MUST NOT** write anything during the reading time.
- You should attempt ALL questions.
- Answers should be properly structured and relevant.
- Carefully read ALL the requirements and sub-questions before attempting a specific question.
- ALL answers must be written in the answer book.
- **AVOID WRITING/MARKING** on the question paper at any time which may cause disciplinary action.
- Start answering each question from a fresh sheet.
- Answers should be clearly numbered with the sub-question number.

**Allowable Materials**

- Writing Stationaries
- Non-programmable Calculator

**Assessment Structure**

			<i>Sub-question</i>	<i>Marks</i>	<i>Expected Time Required</i>
Section A	Question 1	Multiple Choice Questions	10	10	20 minutes
	Question 2	Modified True/False	5	5	10 minutes
	Question 3	Matching	5	5	10 minutes
Section B	Question 4	Essay/Computational/Case	3	20	32.50 minutes
	Question 5	Essay/Computational/Case	3	20	32.50 minutes
	Question 6	Essay/Computational/Case	3	20	32.50 minutes
	Question 7	Essay/Computational/Case	3	20	32.50 minutes
	Revision				10 minutes
	Total			100	180 minutes

**RESTRICTED USE**

This paper MUST NOT BE REMOVED from the examination venue

***Do not turn the page until instructed***

**SECTION A [20 MARKS]**

THERE ARE 3 (THREE) QUESTIONS IN THIS SECTION. ANSWER ALL THE QUESTIONS IN THE ANSWER SCRIPT FOLLOWING THE EXAMPLE PROVIDED FOR THE SPECIFIC QUESTION.

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**QUESTION 1**

**[10 × 1 = 10 MARKS]**

There are ten (10) multiple-choice questions with five options. Pick the option that best explains the given question. Write your answer on the answer script [DO NOT PUT ANY MARK ON THE QUESTION PAPER]. Follow the example given below in providing your answer.

**Example:**

(i). ICMAB stands for the –

- (a) Institute of Cost Management Accounting of Bangladesh
- (b) Institute of Cost and Management Accountants of Bangladesh
- (c) Institute for Cost Managers and Accounting of Bangladesh
- (d) Institute of Cost Management Accountants of Bangladesh
- (e) Industrial Cost Management Accountants of Bangladesh

**Answer: (i) (b)**

- (i) If the nominal rate of interest is 10% per annum and there is quarterly compounding, the effective rate of interest will be:
  - (a) 10% per annum
  - (b) 10.13% per annum
  - (c) 10.25% per annum
  - (d) 10.38% per annum
  - (e) 10.50% per annum
  
- (ii) Which of the following is the variability of return on stocks associated with the changes in return on the market as a whole?
  - (a) Systematic risk
  - (b) Standard deviation
  - (c) Unsystematic risk
  - (d) Coefficient of variation
  - (e) Value at risk
  
- (iii) The dividend growth rate is referred to as the:
  - (a) Dividend yield
  - (b) Discount rate
  - (c) Capital gain yield
  - (d) Market return
  - (e) Yield to maturity
  
- (iv) Which of the following has an implicit cost of capital?
  - (a) Common share
  - (b) Preference share
  - (c) Bond
  - (d) Share premium
  - (e) Retained earnings

- (v) Gross working capital refers to:
- (a) The amount utilized at the time of contingencies
  - (b) The difference between current assets and current liabilities
  - (c) The firm's investment in current assets
  - (d) The capital required at the commencement of the business
  - (e) The working capital required on a continuous basis
- (vi) If the intrinsic value of a stock is greater than its market value, which of the following is a reasonable conclusion?
- (a) The stock has a low level of risk
  - (b) The stock offers a high dividend payout ratio
  - (c) The market is overvaluing the stock
  - (d) The market is undervaluing the stock'
  - (e) The investors are irrational
- (vii) Which of the following measures the solvency of a firm?
- (a) Current ratio
  - (b) Debt-equity ratio
  - (c) Market capitalization
  - (d) Turnover ratio
  - (e) Return on equity
- (viii) A right issue is:
- (a) An offer of shares at the market price
  - (b) An initial public offering
  - (c) An offer of shares at a discount to the market price
  - (d) An offer of shares at a discount to new shareholders
  - (e) A repeat public offering
- (ix) What is the value of the tax shield if the value of the firm is Tk. 5 million, its value if unlevered would be Tk. 4.78 million, and the present value of bankruptcy and agency costs is Tk. 360,000?
- (a) Tk. 140,000
  - (b) Tk. 220,000
  - (c) Tk. 360,000
  - (d) Tk. 440,000
  - (e) Tk. 580,000
- (x) Z company's Tk. 100 par value preferred stock just paid its Tk. 10 per share annual dividend. The preferred stock has a current market price of Tk. 96 a share. The firm's marginal tax rate is 40 percent, and the firm plans to maintain its current capital structure relationship into the future. The component cost of preferred stock to Z company would be closest to:
- (a) 10.85 percent
  - (b) 10.42 percent
  - (c) 10 percent
  - (d) 6.25 percent
  - (e) 6 percent

**TURN OVER**

**QUESTION 2****[5 × 1 = 5 MARKS]**

There are five (5) statements given under the question. Identify the statements as True or False. If the statement is false, rewrite the statement on the answer script to make it 'True'. Reasoning is NOT required. Follow the example given below in providing your answer.

**Example:**

(a) ICMAB stands for the Industrial Cost Management and Accounting of Bangladesh.

**Answer:**

**(a) False. ICMAB stands for the Institute of Cost and Management Accountants of Bangladesh.**

**Note:**

- You will not get any mark if you simply rewrite as ICMAB *does not* stand for the Industrial Cost Management Accountants of Bangladesh.
- If the statement is true, you need NOT to rewrite the statement rather only mention that the statement is *True*.

- (a) The most popular source of short-term funding is family and friends.  
 (b) Preference dividend coverage ratio is not a profitability ratio.  
 (c) Marginal cost of capital is the cost of additional revenue.  
 (d) The term "capital structure" means current assets and current liabilities.  
 (e) If margin of safety is 0.25 and there is 8% increase in output, then EBIT will be increase by 2%.

**QUESTION 3****[5 × 1 = 5 MARKS]**

Match the items of column A with the most suitable items of column B. Match only one item of column A with one item of column B. Write your answer on the answer script. Follow the example given below in providing your answer.

**Example:**

Column A	Column B
1. ICMAB	(a) Professional accountancy body (b) University

**Answer: 1 (a)**

ColumnA	ColumnB
1. Capital budgeting	(a) Risk free rate of return
2. Risk premium	(b) Inventory management
3. Irrelevance theory	(c) M. M. hypothesis
4. Money market operations	(d) Walter model
5. Trade credit	(e) Long-term investment decisions
	(f) Spontaneous source of finance
	(g) Negotiated source of finance
	(h) Cash management
	(i) Cost of capital
	(j) Reward for bearing extra risk

**END OF SECTION A**

**SECTION B [80 MARKS]**

THERE ARE 4 (FOUR) QUESTIONS IN THIS SECTION. ANSWER ALL THE QUESTIONS IN THE ANSWER SCRIPT. SHOW ALL RELEVANT COMPUTATION.

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**QUESTION 4**

**[4+4+(4+2+3+3) = 20 MARKS]**

- (a) Suppose you were the financial manager of a not-for-profit business (a not-for-profit hospital, perhaps). What kinds of goals do you think would be appropriate?
- (b) Hacker Software has 6.2 percent coupon bonds on the market with 9 years to maturity. The bonds make semiannual payments and currently sell for 104 percent of par. What is the current yield on the bonds? The YTM? The effective annual yield?
- (c) Assume Stocks A and B have the following characteristics:

<b>Stock</b>	<b>Expected Return (%)</b>	<b>Standard Deviation (%)</b>
A	9	33
B	15	62

The covariance between the returns on the two stocks is .001.

**Required:**

- (i) Suppose an investor holds a portfolio consisting of only Stock A and Stock B. Find the portfolio weights,  $X_A$  and  $X_B$ , such that the variance of her portfolio is minimized.
- (ii) What is the expected return on the minimum variance portfolio?
- (iii) If the covariance between the returns on the two stocks is  $-.05$ , what are the minimum variance weights?
- (iv) What is the variance of the portfolio in part (iii)?

**QUESTION 5**

**[6+4 + 10 = 20 MARKS]**

- (a) At a recent Board meeting, the Board Chair of Malek Spinning Ltd suggested the need to restructure the capital of their company. The Chair proposed shares repurchase as the option to consider but majority of the Board members were hearing this term for the first time. As the Finance Manager, you have been directed to help the Board members to understand this option for decision making.

**Required:**

- (i) Explain the term share repurchase to a non-finance person.
- (ii) Identify some situations under which share repurchase will be useful for Malek Spinning Ltd.
- (b) Define exchange rate risk. Explain the impact of purchasing power parity and interest rate parity on exchange rate fluctuations.

**TURN OVER**

(c) The following data relate to Matin Spinning Mills Ltd, a manufacturing company.

Sales revenue for the year	Tk. 1,500,000
Costs as percentage of sales:	
Direct materials	30%
Direct labor	25%
Variable overheads	10%
Fixed overheads	15%
Selling and distribution	5%

Average statistics relating to working capital are as follows:

- Receivables take 2½ months to pay
- Raw materials are in inventory for three months
- WIP represents two months' half-produced goods
- Finished goods represent one month's production
- Credit is taken as follows:

Materials	2 months
Direct labor	1 week
Variable overheads	1 month
Fixed overheads	1 month
Selling and distribution	½ month

WIP and finished goods are valued at the cost of material, labor and variable expenses.

**Required:**

Compute the working capital requirement of Matin Spinning Mills Ltd assuming that the labor force is paid for 50 working weeks in each year.

**QUESTION 6**

**[(3x2)+(3x2)+(4+4) = 20 MARKS]**

(a) The Wintergrass Company has an ROE of 11.4 percent and a payout ratio of 25 percent.

**Required:**

- What is the company's sustainable growth rate?
  - Can the company's actual growth rate be different from its sustainable growth rate? Why or why not?
  - How can the company increase its sustainable growth rate?
- (b) The Cori's Sausage Corporation is trying to choose between the following two mutually exclusive design projects:

Year	Cash Flow (I)	Cash Flow (II)
0	-Tk. 35,000	-Tk. 16,000
1	19,800	9,400
2	19,800	9,400
3	19,800	9,400

**TURN OVER**

**Required:**

- (i) If the required return is 10 percent and the company applies the profitability index decision rule, which project should the firm accept?
  - (ii) If the company applies the NPV decision rule, which project should it take?
  - (iii) Explain why your answers in (i) and (ii) are different.
- (c) Titan Mining Corporation has 8.7 million shares of common stock outstanding and 230,000 6.4 percent semiannual bonds outstanding, par value Tk.1,000 each. The common stock currently sells for Tk.37 per share and has a beta of 1.20, and the bonds have 20 years to maturity and sell for 104 percent of par. The market risk premium is 7 percent, T-bills are yielding 3.5 percent, and the company's tax rate is 35 percent.

**Required:**

- (i) What is the firm's market value capital structure?
- (ii) If the company is evaluating a new investment project that has the same risk as the firm's typical project, what rate should the firm use to discount the project's cash flows?

**QUESTION 7**

**[(4+10+6) = 20 MARKS]**

- (a) "A basic rationale for the objective of maximizing the wealth position of the stockholder as a primary goal of corporations is that such an objective may reflect the most efficient use of society's economic resources and thus lead to a maximization of society's economic wealth." Briefly evaluate this observation.
- (b) Sunflower Ltd. has decided to purchase a new machine that costs Tk. 3.2 million. The machine will be depreciated on a straight-line basis and will be worthless after 4 years. The corporate tax rate is 35 percent. The Prime Bank has offered a four-year loan for Tk. 3.2 million. The repayment schedule is four yearly principal repayments of Tk. 800,000 and an interest charge of 9 percent on the outstanding balance of the loan at the beginning of each year. Both principal repayments and interest are due at the end of each year. A leasing company offers to lease the same machine to Sunflower. Lease payments of Tk. 950,000 per year are due at the beginning of each of the four years of the lease.

**Required:**

- (i) Should Sunflower lease the machine or buy it with bank financing?
  - (ii) What is the annual lease payment that will make Sunflower indifferent to whether it leases the machine or purchases it?
- (c) Antara Ltd is considering issuing a new 10-year bond in the domestic market. The interest rate on the bond is 20%. Interest will be paid semi-annually. The directors are considering the appropriate price at which the new bonds should be sold. The market required return is 25%.

**Required:**

- (i) Compute the price investors would be willing to pay for each Tk. 100 face value bond.
- (ii) Explain how changes in average interest rate affect the value of bonds.

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**END OF SECTION B**

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