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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: IV - THEORY EXAMINATION (20..... - 20.....)

Subject: Financial Modeling

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.

2. Maximum marks for each question are indicated on right -hand side of each question.

3. Illustrate your answers with neat sketches wherever necessary.

4. Assume suitable data if necessary.

5. Preferably, write the answers in sequential order.

6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

20

1. Attempt all parts:-

- 1-a. To find the present value of a sum of rupees 10,000 to be received at the end of each year for the next five years at 10% rate we use (CO1,K1) 1
- (a) Present value of a single cash flow table
- (b) present value of annuity table
- (c) future value of a single cash flow table
- (d) future value of annuity table
- 1-b. Given an investment of rupees 10,000 for a period of one year it is better to invest in a scheme that pays (CO1,K1) 1
- (a) 12% interest compounded annually
- (b) 12% interest compounded quarterly
- (c) 12% interest compounded monthly
- (d) 12% interest compounded daily
- 1-c. Weighted Average Cost of Capital is generally denoted by: (CO2,K1) 1
- (a) k_A
- (b) k_W
- (c) k_O
- (d) k_C
- 1-d. Cost of Capital for Government securities is also known as: (CO2,K1) 1
- (a) Risk-free Rate of Interest,

- (b) Maximum Rate of Return,
 (c) Rate of Interest on fixed Deposits,
 (d) None of the above.
- 1-e. For calculating trend percentages any year is selected as: (CO3,K1) 1
 (a) Current year
 (b) Previous year
 (c) Base year
 (d) None of these
- 1-f. Horizontal Analysis is also known as: (CO3,K1) 1
 (a) Dynamic Analysis
 (b) Structural Analysis
 (c) Static Analysis
 (d) None of these
- 1-g. Select the ratio which measures a firm's ability to pay short-term obligations. (CO4,K1) 1
 (a) Return on Assets
 (b) Quick Ratio
 (c) Earnings Per Share
 (d) Debt Ratio
- 1-h. The return on assets (ROA) measures: (CO4,K1) 1
 (a) Efficiency of asset use
 (b) Debt level
 (c) Liquidity
 (d) Share price performance
- 1-i. The beta of the market portfolio is: (CO5,K1) 1
 (a) 0.5
 (b) -1.0
 (c) 1.0
 (d) 0
- 1-j. Market risk is also called: (CO5,K1) 1
 (a) nondiversifiable risk and systematic risk.
 (b) systematic risk and unique risk.
 (c) unique risk and nondiversifiable risk.
 (d) systematic risk and diversifiable risk

2. Attempt all parts:-

- 2.a. Explain what do you mean by cell address. (CO1,K2) 2
 2.b. Explain cost of equity. (CO2,K2) 2
 2.c. Indicate how each liability is shown in percentage terms in a common size balance 2

sheet. (CO3,K2)

2.d. Name two situations where NPV and IRR might give conflicting results. (CO4,K2) 2

2.e. Mention the condition under which a portfolio is considered efficient. (CO5,K2) 2

SECTION-B 30

3. Answer any five of the following:-

3-a. Give two examples of company-specific assumptions used in a financial model. (CO1,K1) 6

3-b. Explain what is meant by the term “deterministic” in financial modeling. (CO1,K2) 6

3-c. Discuss what is the primary purpose of using Comparable Company Analysis. (CO2,K2) 6

3-d. Give two examples of scenarios used in scenario analysis. (CO2,K2) 6

3.e. Give any five transactions belong to operating and investing activities. (CO3,K2) 6

3.f. Write a detailed analysis on the importance of cash flow timing in project evaluation. (CO4,K2) 6

3.g. Explain how beta helps in comparing the volatility of two stocks. (CO5,K2) 6

SECTION-C 50

4. Answer any one of the following:-

4-a. In 10 years what is the value of Rs 50,000 invested today at an interest rate of 10% per year, compounded half yearly. Explain how to calculate using excel. (CO1,K3) 10

4-b. Financial models are used for taking decision on raising capital from debt or equity. Explain. (CO1,K2) 10

5. Answer any one of the following:-

5-a. State any two reasons why valuation is important for investors. (CO2,K2) 10

5-b. Explain how to find slope of a regression line. (CO2,K2) 10

6. Answer any one of the following:-

6-a. Explain how do you analyze an income statement. (CO3,K2) 10

6-b. A company had following balances investment in the beginning = 34000 investment at the end = 28000 during the year, company sold 40% of its investments held in the beginning of the period at a profit of 8400. Calculate cash flow from investing activity. Discuss components of cash flow from investing. (CO3,K3) 10

7. Answer any one of the following:-

7-a. Determine the NPV for a project with cash flows of \$1,000, \$2,000, \$3,000 over 3 years, with a discount rate of 8% and an initial cost of \$4,000. (CO4,K3) 10

7-b. **GreenTech Solutions** is considering a project that requires an initial investment of ₹8,000. The project is expected to generate steady cash inflows over the next three years. The company uses a discount

rate of 9% to evaluate investment opportunities. The finance team is assessing whether the project's returns justify the upfront cost. Analyze the key financial factors GreenTech Solutions should consider when deciding on this project. Discuss how concepts like the time value of money, cash inflows, and discount rate influence the evaluation. (CO4,K4)

8. Answer any one of the following:-

- 8-a. A stock has a beta of 1.5. The risk-free rate is 6% and the expected market return is 12%. Calculate the expected return using CAPM. (CO5,K3) 10
- 8-b. Risk-free rate = 2%, expected return on stock = 10%, market return = 12%. Calculate the stock's beta using the CAPM formula. (CO5,K3) 10

REG:JAN_JUN-2025