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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VII - THEORY EXAMINATION (2024 - 2025)

Subject: Finance for Engineers

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**

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1. Attempt all parts:-

- 1-a. For every debit there will be an equal credit according to (CO1,K1) 1
- (a) Matching concept
- (b) cost concept
- (c) Money measurement concept
- (d) Dual aspect concept
- 1-b. The owner of the business is treated as a creditor of the business according to which of the following concept? (CO1,K1) 1
- (a) Entity concept
- (b) Materiality concept
- (c) Consistency concept
- (d) Periodicity concept
- 1-c. Shareholders' equity represent on a balance sheet.....(CO2,K1) 1
- (a) The total assets of the company.
- (b) The ownership interest of the shareholders in the company.
- (c) The total liabilities of the company.
- (d) The total revenues generated by the company.
- 1-d. Quick ratio measures.....(CO2,K1) 1
- (a) Long-term solvency of a company
- (b) Short-term liquidity of a company, excluding inventory

- (c) Profitability of a company
- (d) Efficiency in managing receivables
- 1-e. in India primarily focuses on funding and supporting micro, small, and medium enterprises (MSMEs).(CO3,K1) 1
- (a) Reserve Bank of India (RBI)
- (b) Industrial Development Bank of India (IDBI)
- (c) National Bank for Agriculture and Rural Development (NABARD)
- (d) Small Industries Development Bank of India (SIDBI)
- 1-f. Angel Investor refer to in the context of startup finance.....(CO3,K1) 1
- (a) Individuals who invest in mutual funds
- (b) Government officials overseeing startup regulations
- (c) Investors who provide capital to startups in exchange for equity
- (d) Financial analysts specializing in startup valuation
- 1-g. Cash Flow Statement is based upon (CO4,K1) 1
- (a) Cash basis of accounting
- (b) Accrual basis of accounting
- (c) Credit basis of accounting
- (d) None of these
- 1-h. The formula for net working capital is _____.(CO4,K1) 1
- (a) Current Assets – Current Liabilities
- (b) Fixed Assets – Current Assets
- (c) Assets – Liabilities
- (d) Current Assets – Liabilities
- 1-i. A mutual fund's expense ratio is: (CO5,,K1) 1
- (a) The return on the mutual fund
- (b) The riskiness of the mutual fund
- (c) The annual fee charged to investors
- (d) The number of shares in the mutual fund
- 1-j. A portfolio is composed of 60% stocks and 40% bonds. If the total portfolio value is ₹100,000, calculate the value of the bond portion. (CO5,K2) 1
- (a) 4000
- (b) 40000
- (c) 42000
- (d) 43200

2. Attempt all parts:-

- 2.a. Give an example of an accounting error and explain its potential impact. (CO1,K2) 2
- 2.b. Define ROI. (CO2,K2) 2

- 2.c. Define Sensitivity Analysis.(CO3,K2) 2
- 2.d. Outline the risks associated with holding excessive cash. (CO4,K2) 2
- 2.e. Define "asset allocation."(CO5,K2) 2

SECTION-B

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3. Answer any five of the following:-

- 3-a. Elaborate on the matching principle and its significance in the context of financial accounting. (CO1,K2) 6
- 3-b. Discuss the concept of "materiality" in accounting and its role in determining which financial information is significant enough to be disclosed. (CO1,K2) 6
- 3-c. Explain the concept of financial ratio analysis and its role in assessing a company's liquidity, solvency, profitability, and efficiency. Provide examples of ratios within each category and discuss their significance. (CO2,K2) 6
- 3-d. Discuss the importance of non-financial information in evaluating a company's performance. Provide examples of non-financial factors, such as environmental and social performance, that can affect a company's long-term sustainability. (CO2,K2) 6
- 3.e. Examine the concept of a minimum viable product (MVP) in the startup development process.(CO3,K2) 6
- 3.f. Explain the concept of "supply chain finance" and its role in optimizing working capital for both buyers and suppliers. Discuss the benefits and challenges of implementing supply chain finance programs. (CO4,K3) 6
- 3.g. Discuss the importance of retirement planning and the various investment options available for retirement savings. Explain the benefits of contributing to retirement accounts like 401(k)s or IRAs. (CO5,K2) 6

SECTION-C

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4. Answer any one of the following:-

- 4-a. Ram & Co. purchased machinery for ` 21,000 on 1st April, 2019. The estimated useful life of the machinery is 10 years and depreciation percentage is 10%.Determine the amount of annual depreciation according to the Straight Line Method and prepare Machinery Account for the first three years. The books of account are closed on 31st March every year. (CO1,K4) 10
- 4-b. Pass the following Journal entries: 10
- May 02, 2019:- Goods purchased from Rajesh for Rs. 59,000
- May 06, 2019:- Goods Sold to Narmada for Rs. 24,000
- May 12, 2019:- Insurance premium paid by cheque of Rs. 35,000
- May 18, 2019:- Cheques received from Manu of Rs. 16,000
- May 24, 2019:- Sam paid Rs. 14,000 in cash
- May 25, 2019:- Payment of salary made in cash for Rs. 24,000
- May 30, 2019:- Goods purchased from John on credit for Rs. 32,000 (CO1,K4)

5. Answer any one of the following:-

- 5-a. A) Discuss the term horizontal analysis. B)Two years of balance sheet data are 10

provided: Year 1 - Total Assets ₹500,000; Year 2 - Total Assets ₹600,000. Conduct a horizontal analysis of the change in total assets. (CO2,K3)

- 5-b. A) Discuss various types of liabilities within a firm. B) A company has a debt-to-asset ratio of 0.6 and total assets of ₹100,000. Calculate the company's total liabilities. (CO2,K3) 10

6. Answer any one of the following:-

- 6-a. A) Discuss the need of project finance. B) A project requires an initial investment of ₹80,000 and is expected to generate annual cash inflows of ₹30,000 for 4 years. Calculate the project's average accounting rate of return (ARR). (CO3,K3) 10

- 6-b. A) Describe the term payback period. B) A company is evaluating a project with an initial investment of ₹60,000. The project is expected to generate annual net cash inflows of ₹20,000 for 5 years. Calculate the payback period for this project. (CO3,K4) 10

7. Answer any one of the following:-

- 7-a. A) Elaborate the term Gross and net working capital management. B) A company plans to sell 10,000 units of a product at a price of ₹20 per unit. The variable cost per unit is ₹12. Calculate the company's contribution margin. (CO4,K4) 10

- 7-b. A) Describe the objectives of cash management. B) A company has a beginning cash balance of ₹10,000. Expected cash receipts are ₹50,000 and expected cash disbursements are ₹45,000. Calculate the company's ending cash balance. (CO4,K3) 10

8. Answer any one of the following:-

- 8-a. Jane, a 30-year-old professional, is keen on building a robust financial portfolio to secure her future. She has \$50,000 in savings and is looking to invest for a combination of short-term goals (buying a car in three years) and long-term goals (retirement in 25 years). Jane is risk-averse and wants a diversified portfolio to balance potential returns and risks. 10

Q. Suggest an appropriate asset allocation strategy for Jane's portfolio. Consider her risk profile, time horizon, and the need for both short-term and long-term goals..(CO5,K5)

- 8-b. Critically evaluate the role of personal financial planning in achieving life goals and securing financial well-being. Analyze the key components of a comprehensive financial plan and discuss the importance of setting realistic financial goals, budgeting effectively, and managing debt responsibly. (CO5,K4) 10