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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 (2025 - 2026)**

**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**

20

1. Attempt all parts:-

1-a. Matching concept means (CO1, K1)

1

(a) Assets = capital + liabilities

(b) Transactions recorded at accrual concep

(c) Anticipate no profit but recognize all losses

(d) Expenses should be matched with the revenue of the period.

1-b. A trial balance is prepared:(CO1,K1)

1

(a) after preparation financial statement.

(b) after recording transactions in subsidiary book

(c) after posting to ledger is complete

(d) after posting to ledger is complete and accounts have been balanced.

1-c. ....is typically considered a long-term liability.(CO2,K1)

1

(a) Accounts Payable

(b) Short-term Bank Loan

(c) Bonds Payable

(d) Accrued Expenses

1-d. Identify the financial statement that shows how a company's financial position has changed over a period of time. (CO2,K1)

1

(a) Income Statement

(b) Balance Sheet

(c) Statement of Cash Flows

(d) Statement of Changes in Equity

- 1-e. ....appraisal method involves comparing the benefits and costs of a project in monetary terms. (CO3,K1) 1
- (a) Cost-Benefit Analysis
  - (b) SWOT analysis
  - (c) PERT analysis
  - (d) Break-even analysis
- 1-f. In the "Start" phase, what is the primary goal of a startup's founders? (CO3,K1) 1
- (a) achieving profitability
  - (b) Building brand awareness
  - (c) Establishing a customer base
  - (d) Attracting top talent
- 1-g. Select a technique used to improve cash flow. (CO4,K1) 1
- (a) Offering discounts for early payment
  - (b) Delaying payments to suppliers
  - (c) Factoring accounts receivable
  - (d) All of the above
- 1-h. Just-in-time (JIT) inventory management aims to: (CO4,K1) 1
- (a) Minimize inventory holding costs
  - (b) Maximize inventory levels
  - (c) Eliminate stockouts
  - (d) Increase production efficiency
- 1-i. The primary purpose of a mutual fund is: (CO5,K1) 1
- (a) Real estate investment
  - (b) Diversification of investments
  - (c) Individual stock trading
  - (d) Short-term speculation
- 1-j. The time horizon of an investment refers to: (CO5,K1) 1
- (a) The expected return on the investment
  - (b) The risk associated with the investment
  - (c) The length of time the investment will be held
  - (d) The liquidity of the investment
2. Attempt all parts:-
- 2.a. Explain the various types of ledger : (CO1,K2) 2
- 2.b. Define "dividend" in the context of stocks. (CO2,K1) 2
- 2.c. State the benefits of using project management software. (CO3,K2) 2
- 2.d. List three strategies for managing accounts receivable effectively. (CO4,K2) 2
- 2.e. Write a note on financial portfolio.(CO5, K2) 2

**SECTION-B**

30

3. Attempt all parts:-

3.a. Answer any one of the following:-

- 3.a.(i) Explain the purpose of preparing a Profit & Loss Account.(CO1,K2) 6
- 3.a.(ii) Explain the concept of the "entity concept" in accounting and its importance in separating the business's financial affairs from the owner's personal affairs. (CO1,K2) 6
- 3.b. Answer any one of the following:-
- 3.b.(i) Discuss the purpose and importance of the income statement in evaluating a company's financial performance. Outline the key components of a multi-step income statement and how they contribute to understanding profitability. (CO2,K3) 6
- 3.b.(ii) Explain the purpose and importance of conducting vertical analysis of financial statements. Describe how vertical analysis helps in understanding the relative proportions of different items within a financial statement. (CO2,K3) 6
- 3.c. Answer any one of the following:-
- 3.c.(i) Discuss the role of sensitivity analysis in assessing the robustness of a project's financial projections. Explain how sensitivity analysis helps in understanding the impact of changes in key variables on project outcomes. (CO3,K2) 6
- 3.c.(ii) Explain the concept of "social entrepreneurship" and its role in addressing social and environmental challenges through innovative project initiatives. (CO3,K2) 6
- 3.d. Answer any one of the following:-
- 3.d.(i) Explain briefly cash management? What are the motives of holding cash?(CO4,K2) 6
- 3.d.(ii) Explain the importance of continuous improvement in working capital management. Describe how companies can use data analysis, process optimization, and employee training to enhance their working capital efficiency over time. (CO4,K3) 6
- 3.e. Answer any one of the following:-
- 3.e.(i) Describe the concept of risk tolerance and its role in shaping an individual's investment strategy. Explain how factors like age, income, and financial obligations can influence an investor's risk tolerance. (CO5,K3) 6
- 3.e.(ii) Describe the impact of economic and geopolitical events on investment markets. Explain how factors like interest rates, inflation, and global conflicts can influence investment performance. (CO5,K2) 6

**SECTION-C** 50

4. Answer any one of the following:-

4-a. **Pass journal entries for the following transactions for June 2019:** 10

1. **June 03, 2019:** Purchased goods from Rohan for Rs. **45,500** on credit
2. **June 05, 2019:** Sold goods to Kavita for Rs. **28,000**
3. **June 10, 2019:** Paid electricity bill by cheque Rs. **12,400**
4. **June 14, 2019:** Received cash from Vivek Rs. **18,700**
5. **June 20, 2019:** Amit paid Rs. **21,500** by cheque
6. **June 23, 2019:** Rent paid in cash Rs. **19,000**
7. **June 28, 2019:** Purchased goods from Suresh for Rs. **36,800** on credit

(CO1,K4)

4-b. A company purchased new machinery on **1st April 2024** for **₹15,000**. The machine is expected to have a **useful life of 3 years** and an estimated **salvage value of ₹3,000** at the end of its life. 10

The company follows the **Double-Declining Balance (DDB) method** for depreciation.

(a) Calculate the **depreciation rate** under the double-declining balance method.

(b) Compute the **depreciation expense for the first year**.

(c) Determine the **book value at the end of Year 1**.

(d) Analyse whether the depreciation in Year 1 under the DDB method will be **higher or lower** compared to the Straight-Line Method and justify your answer. (CO1,K4)

5. Answer any one of the following:-

5-a. Prepare the **Trading and Profit & Loss Account** and **Balance Sheet** of **Meera Traders** as at **31st March 2023** from the following balances:

10

Particulars	Amount (₹)
Capital (Cr.)	2,50,000
Opening Stock	80,000
Purchases	2,20,000
Purchase Return	5,000
Sales	4,00,000
Sales Return	8,000
Wages	60,000
Salaries	40,000
Rent	30,000
Debtors	1,20,000
Creditors	40,000
Cash	35,000

**Closing Stock was valued at ₹1,20,000. (CO2,K5)**

5-b. A company has the following financial information for the year ending 31st March 2024:

10

- **Debtors: ₹18,000**
- **Cash in hand: ₹12,000**
- **Stock: ₹25,000**
- **Creditors: ₹10,000**
- **Bills Payable: ₹6,000**

You are required to:

(a) Calculate the **Total Current Assets**

(b) Calculate the **Total Current Liabilities**

(c) Compute the **Current Ratio**

(d) Analyse whether the liquidity position of the company is strong or weak based on your result. (CO2,K4)

6. Answer any one of the following:-

- 6-a. Discuss the role of technology in enhancing project management practices. Analyze the benefits and challenges of using project management software, collaboration tools, and other technologies to improve project planning, execution, and monitoring. (CO3,K3) 10
- 6-b. A project requires an **initial investment of ₹45,000**. It is expected to generate the following **annual cash inflows**: 10

Year	Cash Inflow (₹)
1	15,000
2	18,000
3	20,000
4	16,000

The cost of capital (discount rate) is **8%**.

- (a) Calculate the **Present Value (PV)** of each year's cash inflow
- (b) Compute the **Total Present Value of cash inflows**
- (c) Calculate the **Net Present Value (NPV)** of the project
- (d) Interpret whether the project should be accepted or rejected (CO3,K4)

7. Answer any one of the following:-

- 7-a. A company has the following financial structure: 10
- **Equity Share Capital: ₹4,00,000**
  - **Long-term Debt: ₹1,50,000**
  - **Fixed Assets: ₹4,20,000**
  - **Current Assets: ₹3,00,000**
  - **Current Liabilities: ₹1,40,000**

- (a) Compute the **Net Working Capital (NWC)**.
- (b) Determine the **amount of current assets financed by long-term funds**.
- (c) Using a clearly labelled schematic diagram, show how long-term and short-term funds finance the firm's assets.
- (d) Analyse whether the company is in a stable liquidity position

(CO4,K5)

- 7-b. A company begins the month with a **cash balance of ₹18,000**. It expects **cash receipts of ₹62,000** during the month and **cash disbursements of ₹54,000**. 10

(a) Calculate the **ending cash balance** of the company.

(b) Determine whether the company will have a **cash surplus or cash deficit**, and by how much.

(c) Briefly explain what this surplus/deficit indicates about the firm's short-term liquidity position. (CO4,K4)

8. Answer any one of the following:-

- 8-a. Explain the concept of diversification and its importance in managing investment risk. Analyze the benefits of constructing a diversified portfolio across different asset classes, sectors, and geographical regions, and discuss the strategies investors can use to achieve diversification. (CO5,K3) 10
- 8-b. Explain the concept of socially responsible investing (SRI) and its growing importance in aligning investment decisions with personal values and ethical considerations. Analyze the different approaches to SRI and discuss the challenges and opportunities associated with this investment philosophy. (CO5,K3) 10

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