



M.E DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

First Semester

CONSTRUCTION MANAGEMENT

P18CMT1002 : Construction Economics and Finance

COURSE OUTCOMES

- CO1:** The student is expected to govern the financial system of an organization.
- CO2:** To estimate the economic life of an asset without inflation effect.
- CO3:** To understand various methods of depreciation, tax and cost analysis of construction equipment followed by cost estimating.
- CO4:** To estimate the economic life of an asset with inflation effect.
- CO5:** To study the growth of MNC's in relation to the construction industry.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. What does the economic law of production state? CO1 [K₁]
 - a) Increased production leads to decreased costs.
 - b) Production output is constant regardless of inputs.
 - c) Production increases until the marginal cost equals the marginal revenue.
 - d) Production follows the law of diminishing returns.

2. Matching type item with multiple choice code CO1 [K₂]

List I	List II
A. Financial Statement Audit	i. Evaluates the efficiency and effectiveness of operations.
B. Operational Audit	ii. Focuses on ensuring compliance with laws and regulations.
C. Compliance Audit	iii. Reviews the accuracy and reliability of financial information.

List I	List II
A. Liquidity Ratio	i. Measures the efficiency of managing and utilizing inventory.
B. Profitability Ratio	ii. Examines the relationship between a company's short-term assets and liabilities.
C. Inventory Turnover Ratio	iii. Measures a company's ability to meet its short-term obligations.
D. Current Ratio	iv. Indicates the proportion of profit available to cover interest expenses.

- a) A-iii, B-iv, C-ii, D-iii b) A-ii, B-iv, C-i, D-iii
c) A-ii, B-i, C-iv, D-iii d) A-iii, B-iv, C-ii, D-i

8. Sequence the steps for financial control. CO3 [K4]

- a) Identification of Investment Opportunities--->Conducting Feasibility Analysis.--->Risk Assessment & Mitigation--->Selecting Financing Sources--->Finalizing Investment Decisions b) Identification of Investment Opportunities--->Risk Assessment and Mitigation--->Conducting Feasibility Analysis.--->Selecting Financing Sources--->Finalizing Investment Decisions
- c) Conducting Feasibility Analysis--->Risk Assessment and Mitigation--->Identification of Investment Opportunities--->Selecting Financing Sources--->Finalizing Investment Decisions d) Identification of Investment Opportunities--->Selecting Financing Sources--->Risk Assessment and Mitigation--->Conducting Feasibility Analysis.--->Finalizing Investment Decisions

9. Which factors contribute to the determination of economic life for construction assets without considering inflation effects? CO2 [K1]

(i) Construction technology (ii) Regional variations (iii) Consumer Price Index (CPI)
(iv) Government policies

- a) Only (iv) b) Both (iii) and (iv)
c) (i) and (ii) d) (i) and (iii)

10. Assertion (A): The economic life determination for construction assets without considering inflation effect remains constant. CO5 [K4]

Reason (R): Inflation has no impact on the economic life of construction assets; it only affects project costs and revenues.

- a) Both A and R are true, and R is the correct explanation of A. b) Both A and R are true, but R is NOT the correct explanation of A.
c) A is true, but R is false. d) Both A and R are false.

PART B (10 x 2 = 20 Marks)

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|--|-----|-------------------|
| 11. Outline the economic law of production. | CO1 | [K ₂] |
| 12. Identify the key components of Quality Control. | CO1 | [K ₃] |
| 13. Define the concept of "local material selection" in construction economics. | CO3 | [K ₁] |
| 14. Assess the relationship between construction development and the environment. | CO1 | [K ₅] |
| 15. List the primary sources for Internal Generation of Funds. | CO3 | [K ₁] |
| 16. Describe the role of Leasing as a financing instrument. | CO5 | [K ₁] |
| 17. Identify a key difference between Fund Flow Analysis and Cash Flow Analysis. | CO3 | [K ₁] |
| 18. Infer the term "Financial Control". | CO4 | [K ₂] |
| 19. Explain the primary purpose of adjusting for inflation in economic evaluations. | CO2 | [K ₂] |
| 20. List a few factors contributing to the growth of multinational construction companies. | CO5 | [K ₁] |

PART C (6 x 5 = 30 Marks)

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|---|-----|-------------------|
| 21. Discuss the factors influencing the choice of technology in civil engineering projects. | CO1 | [K ₆] |
| 22. Explain the concept of "Economics of Ecology" in the context of construction projects. | CO3 | [K ₅] |
| 23. Evaluate the economic implications of "Urban Problems" | CO2 | [K ₅] |
| 24. Compare and contrast Short-Term Borrowing and Long-Term Borrowing as financing options for construction projects. | CO3 | [K ₄] |
| 25. Following is the Balance sheet of Electro Matrix Ltd., for the year ended Dec 31, 2022: | CO3 | [K ₅] |

Particulars	Rs.	Particulars	Rs.
9% Preference Share Capital	5,00,000	Goodwill	1,00,000
Equity share Capital	10,00,000	Land & Building	6,50,000
8% Debentures	2,00,000	Plant	8,00,000
Long term loans	1,00,000	Furniture & Fixtures	1,50,000

Bills payable	60,000	Bills receivables	70,000
Sundry creditors	70,000	Sundry debtors	90,000
Bank overdraft	30,000	Bank balance	45,000
Outstanding Expenses	5,000	Short term investment	25,000
		Prepaid expenses	5,000
		Stock	30,000

From the Balance sheet, Calculate Current ratio and Acid test ratio. Comment on these ratios regarding the company's financial position.

26. Explain the impact of inflation on financing costs in construction projects. CO4 [K₅]

**Answer any FOUR Questions
PART D (4 x 10 = 40 Marks)**

27. Evaluate the economic principles of market demand and supply in the context of civil engineering projects. CO1 [K₅]
28. Explain the strategies for ensuring that infrastructure projects contribute positively to economic development and social well-being. CO3 [K₄]

29. Following are the particulars of a concern for the year ended 31st March 2021 and 2022. Prepare a Comparative Balance Sheet & study the financial position of the concern.

CO3 [K₄]

Shakthi Ltd has assets & liabilities as follows:

Particulars	2021	2022	Particulars	2021	2022
Land & Building	3,70,000	2,70,000	Reserves & Surplus	3,30,000	2,22,000
Equity share Capital	6,00,000	8,00,000	Long term loans on mortgage	1,50,000	2,00,000
Debentures	2,00,000	3,00,000	Bills receivables	1,50,000	90,000
Bills payable	50,000	45,000	Inventory	2,50,000	3,50,000
Sundry creditors	1,00,000	1,20,000	Sundry debtors	2,00,000	2,50,000
Plant & machinery	4,00,000	6,00,000	Other fixed assets	25,000	30,000
Furniture & Fixtures	20,000	25,000	Cash in hand & Bank	20,000	80,000
Prepaid Expenses	-	2,000	Other Current liabilities	5,000	10,000

30. Examine the benefits and challenges of Equity Financing and Debt Financing.

CO1 [K₄]

31. Evaluate the effectiveness of two techniques used for the measurement of inflation in economic analyses.

CO4 [K₅]
