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# APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY THIRD SEMESTER M. TECH DEGREE EXAMINATIONS

### **Civil Engineering**

# (Structural Engineering & Construction Management) 04 CE 7405 - Construction Economics and Finance

Max. Marks: 60 Duration: 3 Hours

#### **PARTA**

### Answer All Questions

#### Each question carries 3marks

- 1. Explain Cash Flow Diagram.
- 2. Differentiate Nominal and Effective Interest Rate.
- 3. Differentiate Single Payment Compound Amount and Single Payment Present Worth Amount.
- 4. Briefly explain Rate of Return Analysis.
- 5. Briefly explain Depreciation with reference to Construction Economics.
- 6. What are the sources of Short term Finance?
- 7. What is Mortgage Financing?
- 8. Write notes on International financial management.

#### **PARTB**

## Each question carries 6marks

9. Explain Time Value of Money in detail with examples.

OR

- 10. If a person depositing Rs10, 000/-into a bank that pays 5% interest, compounded semi-annually. How much would be this amount at the end of one year
- 11. Explain in detail Cash flow involving Geometric Gradient Payments.

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- 12. A person who is now 35 years old is planning for his retired life. He plans to invest an equal sum of Rs 10,000 at the end of every year for the next 25 years starting from the end of next year. The bank gives 10% interest rate, compounded annually. Find the maturity value of his account when he is 60 years old.
- 13. Write notes on a)Benefit/Cost Analysis
  - b) Break Even Analysis

OR

14. A construction firm is planning to invest Rs.800000 for the purchase of construction equipment which will generate a net profit of Rs.140000 per year after deducting the annual operating and maintenance cost. The useful life of the equipment is 10 years and the expected salvage value of the equipment at the end of 10 years is Rs.200000.Compute the rate of return using trial and error

method based on present worth, if the construction firms minimum attractive rate of return (MARR) is 10% per year.

15. List the Factors to Consider While Evaluating Alternative Investments and explain each in detail.

OR

- 16. Give the procedure for Equipment Replacement Analysis.
- 17. Explain Declining Balance (DB) depreciation method.

OR

- 18. Explain various Sources of finance for Construction Industry.
- 19. Explain in detail Inventory valuation in Construction Industry.

OR

20. Write notes on Working Capital Management.