Reg No.:_______________ Name:__________________________

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

Eighth Semester B.Tech Degree Regular Examination June 2023 (2019 Scheme)

**Course Code: MET428**

**Course Name: PROJECT PLANNING AND MANAGEMENT**

(*Use of Statistical Tables permitted*)

**Max. Marks: 100** **Duration: 3 Hours**

**PART A**

***Answer all questions, each carries 3 marks.*** Marks

| | | |
|---|---|---|
| 1 | Explain the preliminary screening of project ideas. | (3) |
| 2 | Define grand strategy with a block diagram. | (3) |
| 3 | List out the factors influenced by the selection of technology. | (3) |
| 4 | What is product mix? List out the elements of product mix. | (3) |
| 5 | List out the advantages and disadvantages of the payback period method. | (3) |
| 6 | What is break even analysis of a project? | (3) |
| 7 | What are the key factors that determine the capital structure? | (3) |
| 8 | Define economic order quantity in inventory management. | (3) |
| 9 | What are the forms of project organization? | (3) |
| 10 | What are project scheduling techniques? | (3) |

**PART B**

***Answer any one full question from each module, each carries 14 marks.***

**Module I**

| | | |
|---|---|---|
| 11 | Describe capital budgeting. Explain the phases and common weakness of capital budgeting. | (14) |
| | **OR** | |
| 12 | Describe about portfolio strategy. Explain the three portfolio planning tools. | (14) |

**Module II**

| | | |
|---|---|---|
| 13 | Explain about the following regarding technical analysis of a project: (i) Raw materials (ii) Plant capacity (iii) Plant and machinery. | (14) |
| | **OR** | |
| 14 | Explain about the following: (i) Projected balance sheet (ii) Profit and loss account (iv) Time value of money. | (14) |

## Module III

15 What is discounted cash flow techniques? Explain the following discounted cash flow techniques: (i) Discounted payback period (ii) Net present value (iii) Internal rate of return. (14)

**OR**

16 An investment having cash flows as follows: (14)

Initial investment at start of project: Rs. 3,600,000
Cash flow at end of year 1: Rs. 500,000
Cash flow at end of years 2 through 6: Rs. 625,000 each year
Cash flow at end of years 7 through 9: Rs. 530,000 each year
Cash flow at end of year 10: Rs. 385,000

The appropriate discount rate for the project is 14%. If the cut-off period is six years for the project, determine if the project is accepted or rejected under the following decision models: (i) Payback Period (ii) NPV (iii) Profitability Index.

## Module IV

17 Explain about the following: (i) Sources of finances (ii) Equity capital (ii) Preference capital. (14)

**OR**

18 Explain JIT manufacturing concept in the following aspects: (i) Definition with an example (ii) Basic principles (iii) Advantages and disadvantages. (14)

## Module V

19 Explain the pre-requisites for successful project implementation. What are the components and impact of credit policy? (14)

**OR**

20 Consider the (simplified) list of activities and predecessors that are involved in building a house. (14)

| Activity | Description | Predecessors | Duration (weeks) |
|---|---|---|---|
| A | Build foundation | — | 5 |
| B | Build walls and ceilings | A | 8 |
| C | Build roof | B | 10 |
| D | Do electrical wiring | B | 5 |
| E | Put in windows | B | 4 |
| F | Put on siding | E | 6 |
| G | Paint house | C, F | 3 |

(i) Define critical path method. What are the conditions to use CPM in project management?
(ii) Draw network diagram.
(iii) Identify the critical path.
(iv) Compute the number of weeks expected to build the house.

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