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Total Number of Pages : 02

B.Tech
PME5J102

5th Semester Regular/Back Examination 2019-20

PROJECT MANAGEMENT

BRANCH : MECH

Max Marks : 100

Time : 3 Hours

Q.CODE : HRB415

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)

- a)** What is 'Project Charter'?
- b)** What is Project control?
- c)** Write the main advantage of matrix organization?
- d)** What is the main objective of break-even analysis?
- e)** Expected return on investment after a period of five years is Rs.10,00,000/- . Determine net present value of return by assuming a discount rate of 12%.
- f)** What are various types of precedence relationships that can exist between two activities?
- g)** Distinguish between an activity and an event.
- h)** Distinguish between total float, free float and independent float.
- i)** Name some tools/ charts used for project scheduling and control.
- j)** List various types of risks associated with project

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- a)** Briefly discuss the importance of Pre-feasibility and feasibility studies in ensuring success in operation phase of the project.
- b)** List various criteria for selection of project.
- c)** Write the role and responsibilities of a Project Manager.
- d)** Discuss the form of organisation with respect to suitability for project management.
- e)** What is the aim of 'Resource Levelling'? Briefly describe any one method of Resource Levelling.
- f)** Explain the concept of 'Line of Balance' for planning of repetitive projects.
- g)** Describe some common reasons for failure of a project.
- h)** Explain the use of Gantt Chart in project monitoring and control.
- i)** Briefly discuss the key elements of control process in projects.
- j)** Write various aspects that come under the purview of Project Audit.
- k)** What should be the desirable features of Project Management Information System (PMIS)?
- l)** Explain the various methods of Project termination.

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

Q3

A firm has three projects A , B and C under considerations. It has identified critical factors as availability of inputs, availability of markets, economy of operation, low risk, favourable government policy and compatibility with promoter's interest. The company has rated the important factors for each project is as follows.

Factors	Weight	Scores (0 to 100)		
		A	B	C
Availability of inputs	0.20	90	85	85
Availability of markets	0.20	75	90	50
Economy	0.20	50	90	85
Less risks	0.15	90	65	80
Favourable government policy	0.15	90	85	70
Compatibility	0.10	60	80	70

Which project would you recommend?

Q4

A project comprising of eight tasks (A to H) has the following time estimates.

(16)

Tasks	Predecessor	Time duration (weeks)		
		Optimistic	Most Likely	Pessimistic
A	None	2	4	12
B	None	10	12	26
C	A	8	9	10
D	A	10	15	20
E	A	7	7.5	11
F	B,C	9	9	9
G	D	3	3.5	7
H	E,F,G	5	5	5

Draw the network diagram. Determine the critical path and expected duration of project. What is the duration for the project to be completed with 75% probability? Value of 'z' for 75% probability is 0.68.

Q5

The time and cost estimates of different activities of a project and their precedence relationship are ' given below:

(16)

Activity	Preceding activity	Time (weeks)		Cost (Rs.)	
		Normal	Crash	Normal	Crash
A	—	4	3	34,000	40,000
B	—	6	4	70,000	80,000
C	B	3	2	25,000	30,000
D	A	8	4	25,000	37,000
E	A	14	8	42,000	60,000
F	C,D	8	4	30,000	38,000

Indirect cost is Rs. 7,000 per week. Determine optimal crash duration of project. How much money is saved by crashing?

Q6

Describe different types of project feasibility analysis and typical content of project feasibility report.

(16)