

**PROJECT MANAGEMENT
(HMTS 4202)**

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.*

Candidates are required to give answer in their own words as far as practicable.

**Group – A
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**

- (i) Popular project management software features include
(a) team collaboration (b) time tracking
(c) reporting (d) all of these
- (ii) Dangling activity in the given network (Figure I) is

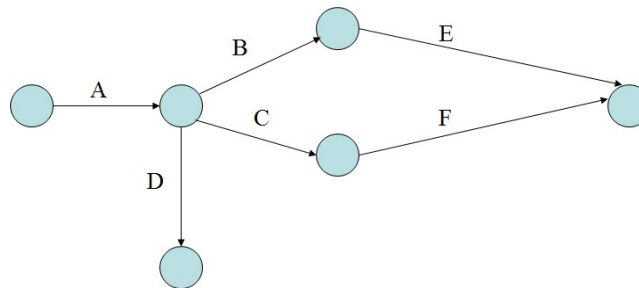


Figure I

- (a) B (b) D
(c) A (d) F
- (iii) While conducting financial evaluation of projects _____ method does not consider time value of money
(a) Rate of return (b) Net Present Value Method
(c) Discounted cash flow (d) Both (a) and (b)
- (iv) Project Crashing involves analysis of _____ trade-offs
(a) Cost and Schedule (b) Quality and Time
(c) Time and Scope (d) All of these
- (v) In the SMART criteria used in determining the objective of a project 'S' stands for
(a) Simple (b) Systematic
(c) Scientific (d) Specific

(vi) Following Diagram (Figure II) of an unbalanced project depicts likelihood of

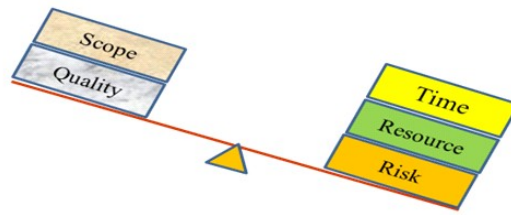


Figure II

- (a) Needing more time
(b) Wastage of resources
(c) Improving quality
(d) Requiring further resource
- (vii) Algorithm followed in PERT for scheduling project activities is
(a) Probabilistic
(b) Deterministic
(c) Cardinal
(d) Nominal
- (viii) Building construction is _____ project
(a) business implementation
(b) routine
(c) investigative
(d) reengineering
- (ix) Web-based project management software
(a) has unlimited graphical capability compared to desktop applications
(b) is typically faster to respond than desktop applications
(c) provides multi-user facility
(d) both (a) and (c)
- (x) EPM stands for
(a) Effective Project Management
(b) Enterprise Project Management
(c) Economic Process Mechanism
(d) Engineering Production Module

Group – B

2. (a) State the salient differences between PERT and CPM.
(b) For a project having following activity details (in Table I)

Activity	Immediate Predecessor	Duration (Days)
A		5
B		4
C	A	7
D	B	7
E	B	8
F	B	5
G	C, D	8
H	E, I	11
I	F	2
J	F	12
K	H, J	11

Table I

B.TECH/ME/8TH SEM/HMTS 4202/2021

- (i) Draw the Network diagram
- (ii) Determine the critical path
- (iii) Find project completion time
- (iv) Identify burst event / events, if any

$$3 + (5 + 1 + 1 + 2) = 12$$

3. (a) Briefly explain the major reasons resulting delay of project completion.
 (b) How does LOB help in Project Control?

$$6 + 6 = 12$$

Group – C

4. (a) Enlist the useful elements of project cost management. Briefly explain any two of them.
 (b) Explain the significance of Gantt chart in the context of project management

$$(4 + 4) + 4 = 12$$

5. (a) Explain the significance of Time - Cost Trade-off in the context of Project Crashing.
 (b) State phases of Project life cycle. Which phase is most crucial in your opinion and why so?

$$6 + 6 = 12$$

Group – D

6. (a) What are the basic requirements for Total Quality Management for Projects?
 (b) Highlight the difference between Conventional Business Process and Extended Business Enterprise.

$$6 + 6 = 12$$

7. (a) Rahul is offered to choose one of the Projects - A and B. Useful life of both the projects is 5 years and an initial investment of Rs. 40 crores is required to be done for each of the projects. Year wise cash inflow for the projects are furnished below in (Table II). Considering time value of money as 10% which project should be chosen by Rahul?

Year	Cash Flow (in crores of Rs.)	
	A	B
0	-40	-40
1	12	16
2	12	16
3	16	8
4	8	12
5	8	4

Table II

- (b) Enlist most commonly used methods for financial evaluation of projects. Describe the difference between Rate of Return Method and Net Present Value Method.

$$7 + 5 = 12$$

Group – E

8. (a) Narrate salient features of Project Management Software.
(b) Discuss the key criteria to be considered while selecting project management software.

6 + 6 = 12

9. Write short notes on any three of the following
(i) Resource Management
(ii) Project KPI dashboard
(iii) Customization of PM Software
(iv) Project Management SW for small businesses.

(3 × 4) = 12

Department & Section	Submission Link
ME A	https://classroom.google.com/c/MzAwMzIyMzEwNjM1/a/MzYwMzc3NzQyNjgx/details
ME B	https://classroom.google.com/c/MzAxODI3ODA0Mzk2/a/MzU2MTcyODg3NjYy/details