

*evaluated out 100 based on certain technical criteria

Evaluate the bids based on the following criteria :

Case A :

- (i) Technical score must be more than 50
- (ii) Job will be awarded to the bidder with the highest composite score evaluated by considering 80% weightage to score for technical competence and 20% weightage to score for the cost quoted.

Case B :

- (i) Technical score must be more than 50
- (ii) Job is awarded to the bidder with the highest composite score evaluated by considering and equal weightage to score for technical competence and the cost quoted. $7\frac{1}{2} + 7\frac{1}{2} = 15$

Unit III

5. (a) Create a WBS for building a SHOP. Use four levels of details and provide activity codes for each breakdown element ?

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No. of Printed Pages : 07

Roll No.

18AA2261

M. Tech. EXAMINATION, May 2019

(First Semester)

(C Scheme) (Re-appear)

**CONSTRUCTION & REAL ESTATE
MANAGEMENT**

MCRM601C

Project Development and Management

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. All questions carry equal marks. Calculator may used for attempting numerical questions.

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P.T.O.

Unit I

1. Write short notes on any *three* of the following :

- (a) Building project vs. Industrial project
- (b) Scope management
- (c) ISO 21500
- (d) Feasibility report. **5+5+5=15**

2. (a) A developer is envisaging to develop 273 acres land in to a residential development in Sonapat over the next five years. What type of delivery system would you suggest for this project, explain with reasons ?

- (b) What is project and project management process as per the PMBoK ? Discuss role of project manager in each of the stages of project management ?

7½+7½=15

Unit II

3. (a) What is contract as per the Indian contract Act ? Compare Lump sump contract with cost plus contract.

- (b) Explain standard form of contract given by Central Public Works Department (CPWD) ? **7½+7½=15**

4. The details of marks of the technical and the financial bids of four bidders, who bid for a project having an estimated cost of Rs. 1,00,000 are given below :

S.No.	Bidder	Socre of technical bid*	Financial bd (in thousands, INR)
1	A	52	50
2	B	56	53
3	C	66	55
4	D	70	60
5	E	49	45
6	F	68	62

- (b) What are characteristics of repetitive projects, how Line of Balance technique can be used for resource optimization ?

6. Precedence relations and durations for a 7-activity project are shown in the table :

Activity	Immediate Predecessor	Duration
A	—	5
B	A	8
C	A	6
D	B	9
E	B, C	6
F	C	3
G	D,E,F	1

- (a) Draw an activity on Arrow (AOA) network for the project.
- (b) Compute the early start time (EST), early finish time (EFT), late start time (LST), late finish time (LFT) and total float (TF) for each activity.

- (c) Identify the critical activities and the critical path. $5+5+5=15$

Unit IV

7. (a) What is Arbitration ? What are the five common causes of construction disputes ?
- (b) Discuss five construction management practices you would follow as construction manager for GRIHA compliance on your project site.

$$7\frac{1}{2}+7\frac{1}{2}=15$$

8. Consider the project data in the table with data for normal and crash times and costs for each activity. Calculate the minimum total project costs for a maximum critical path length and the maximum total project cost for a minimum critical path length. **15**

Code	Prede- cessor	Duration (weeks)		Cost (INR)		Crashing cost per time unit (INR)
		Normal	Crash	Normal	Crash	
A	—	3	2	6000	8000	2000
B	A	5	4	12000	13500	1500
C	A	5	3	16000	22000	3000
D	A	4	2	8000	10000	1000
E	C,D	2	1	6000	7500	1500
F	B,E	3	1	14000	20000	3000