

CONSTRUCTION
PROJECT
MANAGEMENT
(3360603)

ASSIGNMENT-1

CONSTRUCTION PROJECT AND ORGANISATION MANAGEMENT

- 1 Give objective of construction management.
- 2 What is construction team? Give relation between various agencies associated with construction team by sketch.
- 3 List qualities of a good construction manager.
- 4 Give causes of failure of a project.
- 5 Define organisation. Give functions of organisation.
- 6 Explain principles of organisation.
- 7 Write short note on:
 1. Line organisation
 2. Line and staff organisation
 3. Functional organisation
 4. Matrix organisation

ASSIGNMENT-2

TENDERING AND CONTRACTING

- 1 What is Contract? Explain essential requirement of a valid contract.
- 2 Difference between Departmental execution and Contract system.
- 3 List out types of Contract. Explain Any Three
- 4 Write a short note on Selection of mode of execution.
- 5 Give advantages and disadvantages of Contract system.
- 6 Write a Tender Notice with example.
- 7 Give the definition of following:-
 1. Earnest money deposit
 2. Security deposit
 3. Quotations
 4. Storage rate
 5. Issue rate
 6. Competent Authority
 7. Secured Advance
 8. Advance payment
 9. Mobilisation advance
 10. Intermediate payment
 11. Final Payment
 12. Book transfer
 13. Original works
 14. Special repairs
 15. Grant
 16. Appropriation
 17. Re-appropriation
 18. Quarry chart
 19. Requisition
 20. Survey report
- 8 What is measurement book? Give its use.

ASSIGNMENT-3

CONSTRUCTION PLANNING SCHEDULING AND TIME MANAGEMENT

- 1 List various steps involved in planning.
- 2 What is scheduling? Give its advantages.
- 3 List various types of schedules and explain construction schedule with table.
- 4 Explain the terms :
 1. Event
 2. Activity
 3. Dummy activity
 4. Preceding activity
 5. Following activity
 6. EST
 7. LST
 8. EFT
 9. LFT
 10. Total float
 11. Free float
 12. Independent float
 13. Critical path
 14. Critical activity
- 5 Difference between CPM and PERT.
- 6 Explain in relation to PERT
 - i) Optimistic time
 - ii) Most likely time
 - iii) Pessimistic time
- 7 Short note on Gantt bar chart.
- 8 Give following activities are to be performed in a project. Draw a network diagram and determine critical path and total time to complete the project.

Activity	Nodes	Duration(Days)
A	1-2	4
B	1-3	5
C	2-3	3
D	2-4	6
E	3-4	8

- 9 From the following details draw the network diagram. Give events number and show the critical path. Also calculate total float and find total time required for the completion of the project.

Activity	Preceding activity	Following activity	Duration(days)
A	-	D,B	6
B	A	C,F	4
C	B	H	8
D	A	E	7
E	D	G	4
F	B	J	4
G	E	I	6
H	C,D	I	4
I	G,H	-	5
J	I	-	3

- 10 In a project the following activities are involved. Calculate EST, EFT, LFT, LST, and TF. Show critical path in the network diagram.

Activity	Duration(Days)	Nodes
A	9	1-2
B	10	1-3
C	15	2-4
H	8	2-6
F	16	3-4
G	12	3-5
Dummy	0	4-5
D	13	4-7
E	6	5-7
I	10	6-7

- 11 Draw network diagram from the following details and calculate total float.

Activity	Node	Time(Days)
A	1-2	5
B	2-3	9
C	2-4	3
D	3-6	2
E	4-5	5
Dummy	3-4	0
F	6-5	5
G	5-7	7

12. Draw network diagram and calculate EFT, EST, LST, LFT and TF. Also find total time for the completion of project.

Activity	Predecessor	Duration in months
A	-	5

B	-	1
C	A	2
D	A	3
E	A	2
F	C	3
G	D	4
H	B,E	2
I	H	1
J	F,G,I	1

13. For an activity t_o , t_m and t_p are 6, 9 and 15 days respectively. Determine :
- Expected time
 - Variance
 - Standard deviation.

14. For a project, the three estimate of time t_o , t_m , and t_p for different activities are shown below.

Activity	t_o (Days)	t_m (days)	t_p (Days)
1-2	2	5	14
1-3	3	12	21
2-4	5	14	17
3-4	2	5	8
4-5	1	4	7
3-5	6	15	30

- Draw the network diagram.
 - Calculate expected duration and variance for each activity.
 - Calculate TE and TL for each event.
 - Calculate variance and standard deviation for entire project.
15. Following activities for a project are given below.
Find critical path and float.

Activity	Node	Time in days
A	1-2	5
B	2-3	9
C	2-4	3
D	3-6	2
E	4-5	4
Dummy	3-5	0
F	5-7	7
G	6-7	3
H	7-8	9

ASSIGNMENT-4

MATERIAL MANAGEMENT

- 1 What is Material management? Give functions of material management.
- 2 Explain Job layout.
- 3 Discuss factors affecting Job layout.
- 4 Write a short note on Material purchase procedure.
- 5 Write a short note on Economic order quantity- EOQ.
- 6 Give necessity of Job layout.
- 7 Give Principles of preparing job layout.

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ASSIGNMENT-5

LABOUR MANAGEMENT

- 1 What is labour schedule? Why it is required?
- 2 Give advantages and disadvantages of incentives schemes.
- 3 Give objectives and requirements of incentives schemes.
- 4 Write a short note on Contract labour Act-1970.
- 5 List labour welfare measures to be taken at construction site.

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ASSIGNMENT-6

EQUIPMENT MANAGEMENT

- 1 Explain Equipment Schedule.
- 2 Write short note on:
 1. Excavating and earth moving equipment
 2. Material handling equipment
 3. Soil compacting equipment
- 3 Explain factors affecting selection of construction equipment.
- 4 Difference between standard equipment and special equipment.
- 5 Explain inspection and testing of machine.
- 6 Explain repair and maintenance of machine.
- 7 What precautions to be taken to avoid accidents with equipment.

ASSIGNMENT-7

HUMAN RESOURCES DEVELOPMENT (HRD) & MIS

- Q.1 What is MIS? What information is required for a large civil engineering project?
- Q.2 Give purposes of MIS. What is need of MIS?
- Q.3 Discuss various categories of MIS.
- Q.4 Explain implementation of MIS.
- Q.5 Give application of MIS.

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ASSIGNMENT-8

SAFETY MANAGEMENT

- 1 What safety measures should be taken while using scaffolding during construction?
- 2 Discuss safety measures during excavation.
- 3 What safety precautions should be taken during demolition of buildings?
- 4 Discuss safety precautions during erection of steel structures.
- 5 Write Short note: 1. Demolition of wall
2. Demolition of RCC floor
- 6 What safety precautions should be taken during construction of bituminous road?

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