

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATIONS/2025)**

**CLASS: B.ARCH
BRANCH: ARCHITECTURE**

**SEMESTER : X
SESSION : SP/2025**

SUBJECT: AR552 CONSTRUCTION PROJECT MANAGEMENT

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

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|--|-----|----|----|
| Q.1(a) Define the term 'Project Management'. | [2] | 1 | 1 |
| Q.1(b) Briefly explain the project life cycle covering the various phases. | [3] | 1 | 1 |
| Q.2(a) Differentiate between 'Economic Feasibility' and 'Financial Feasibility'. | [2] | 1 | 2 |
| Q.2(b) What are the various classification of projects based on financing mechanism? | [3] | 1 | 2 |
| Q.3(a) Discuss the various limitations associated with 'Bar Chart' as a project management tool. | [2] | 2 | 2 |
| Q.3(b) Develop the bar chart end estimate the project completion time. Divide the whole project in four equal phases and hence derive the cost histogram of the project. | [3] | 2 | 4 |

Activity	Duration (Days)	% Age Cost	Inter - Relation
A	7	21	Starting Activity
B	4	16	Start after 3 days of A start
C	11	22	Start with B
D	3	21	Can Start with B & C
E	4	8	Start after C & D
F	2	12	Start after E

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|--|-----|---|---|
| Q.4(a) Discuss the Fulkersons's rule of event numbering. | [2] | 2 | 2 |
| Q.4(b) Discuss the various construction and logical errors of a network diagram. | [3] | 2 | 2 |
| Q.5 Construct the CPM network for a project which is divided into following activities as per the table below. | [5] | 3 | 5 |

Activity	Immediate Successor Activity	Duration (Days)
A	B,C,F	4
B	G,D	12
C	E	8
D	F	2
E	H	14
F	H	4
G	-	6
H	-	11

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