JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

M.Tech-I Semester

COURSE CODE (CREDITS): 10M11CE113 (3) MAX. MARKS: 15

COURSE NAME: Construction Planning and Control

COURSE INSTRUCTORS: Akash Bhardwaj MAX. TIME: 1 Hour

Note: (a) *All questions are compulsory.*

(b) *The candidate is allowed to make Suitable numeric assumptions wherever required*

for solving problems

Q.No	Question	Marks
Q1	List the main phases of a construction project lifecycle and briefly describe them using a neat and clean figure showing project lifecycle.	3
Q2	For a 1 km road construction project, draw the work breakdown structure for the following activities – Road Construction Project - Site Preparation (Clearing and Grubbing, Earthwork and Leveling) Sub-base and Base (Granular Sub-base, WBM Base Layer) Surfacing (Bituminous Macadam, Asphalt Concrete) Finishing Works (Road Markings, Signboards and Drainage)	2
Q3.	For the following activities, draw Gantt chart –	3
Q4.	Draw the AOA network diagram for the following table –	3

Q3 table:

Activity	Predecessor	Duration
A	-	3
B	A	4
C	A	2
D	B,C	1
E	D	2

Q4 table:

Activity	IPA
A	-
B	-
C	-
D	A
E	A,B
F	A,B,C

Q5	A project plan consisting of ten events have predecessor relationships as under –	4

Event	Immediate Predecessor
1	-
2	1
3	2
4	2
5	2
6	3,5
7	3,4
8	3,7
9	7
10	3,6,8,9

Draw the network diagram for the project.