

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

BTech-V Semester (CE)

COURSE CODE (CREDITS): 25B1WCE532(3)

MAX. MARKS: 15

COURSE NAME: Construction Technology and Management

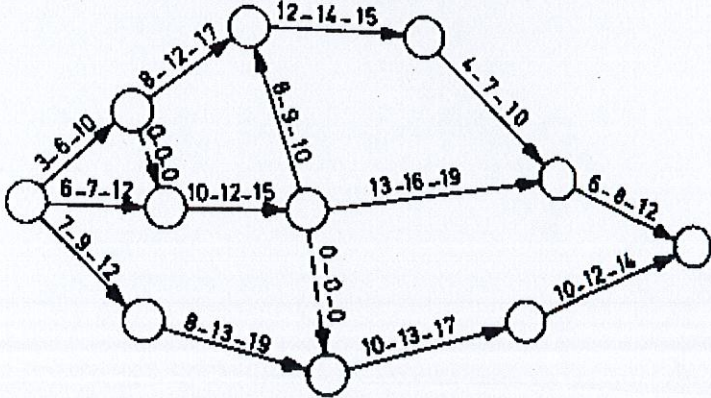
COURSE INSTRUCTOR: Dr. Tanmay Gupta

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

(c) Use of calculator is allowed

Q.No	Question	CO	Marks																								
Q1	Discuss in brief the role of management in project execution? Describe in detail various phases of project management.	1	2+2																								
Q2	(a) What are the shortcomings of bar charts? How are they removed? (b) What do you understand by a work breakdown structure?	1	3																								
Q3	For the network shown below number the event as per Fulkerson's rule and calculate variance, the expected time and critical path. 	2	4																								
Q4	A project plan consisting of ten events have predecessor relationship as shown in table, draw the network diagram for the project plan. <table border="1" data-bbox="352 1574 1182 1823"> <thead> <tr> <th>Event</th><th>Immediate Predecessor</th><th>Event</th><th>Immediate Predecessor</th></tr> </thead> <tbody> <tr> <td>1</td><td>—</td><td>6</td><td>3, 5</td></tr> <tr> <td>2</td><td>1</td><td>7</td><td>3, 4</td></tr> <tr> <td>3</td><td>2</td><td>8</td><td>3, 7</td></tr> <tr> <td>4</td><td>2</td><td>9</td><td>7</td></tr> <tr> <td>5</td><td>2</td><td>10</td><td>3, 6, 8, 9</td></tr> </tbody> </table>	Event	Immediate Predecessor	Event	Immediate Predecessor	1	—	6	3, 5	2	1	7	3, 4	3	2	8	3, 7	4	2	9	7	5	2	10	3, 6, 8, 9	2	2
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4	2	9	7																								
5	2	10	3, 6, 8, 9																								

Q5

A site manager monitors five materials with the following annual consumption and unit costs, Using ABC Analysis, identify the items in Category A:

Item	Unit Cost (₹)	Annual Quantity
1	50,000 per ton	10 tons
2	400 per bag	750 bags
3	1,500 per m ³	80 m ³
4	10 per pc	6,000 pcs
5	100 per kg	200 kg

1

2

JNT TEST-1 EXAMINATION - AUG-2026