PVP 19

Code: 19HS1703

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2022

CONSTRUCTION MANAGEMENT
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 5 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 12 marks.
4. All parts of Question paper must be answered in one place.

BL – Blooms Level CO – Course Outcome

PART – A

		BL	CO
1. a)	What are the limitations in Bar chart scheduling?	L2	CO1
1. b)	List out the types of project scheduling.	L1	CO2
1. c)	Define Resource Smoothening.	L1	CO3
1. d)	What is the significance of construction management?	L2	CO4
1. e)	Mention the salient points in Minimum Wages Act of 1948.	L2	CO5

PART – B

			BL	CO	Max. Marks
UNIT-I					
2		Write a short note on project planning, scheduling and controlling along with various tools used in each stage?	L2	CO1	12 M

<table>
<tr><td colspan="6">OR</td></tr>
<tr><td rowspan="2">3</td><td>a)</td><td>What is a Milestone Chart? Enumerate the advantages and limitations of the Milestone Chart?</td><td>L2</td><td>CO1</td><td>7 M</td></tr>
<tr><td>b)</td><td>What is a dummy activity? Explain its importance.</td><td>L2</td><td>CO1</td><td>5 M</td></tr>
<tr><td colspan="6">UNIT-II</td></tr>
<tr><td>4</td><td colspan="3">Draw the network for the following project and indicate the event times and critical path. Also find the project duration and the total float for all activities.
<table>
<tr><th>Activity</th><th>Preceding Activity</th><th>Succeeding Activity</th><th>Duration</th></tr>
<tr><td>A</td><td>-</td><td>B,C</td><td>4</td></tr>
<tr><td>B</td><td>A</td><td>D,E</td><td>1</td></tr>
<tr><td>C</td><td>A</td><td>F,G</td><td>5</td></tr>
<tr><td>D</td><td>B</td><td>H</td><td>3</td></tr>
<tr><td>E</td><td>B</td><td>I</td><td>3</td></tr>
<tr><td>F</td><td>C</td><td>I</td><td>1</td></tr>
<tr><td>G</td><td>C</td><td>J</td><td>2</td></tr>
<tr><td>H</td><td>D</td><td>-</td><td>7</td></tr>
<tr><td>I</td><td>E,F</td><td>-</td><td>6</td></tr>
<tr><td>J</td><td>G</td><td>-</td><td>1</td></tr>
</table></td><td>L4</td><td>CO2</td><td>12 M</td></tr>
<tr><td colspan="6">OR</td></tr>
<tr><td rowspan="2">5</td><td>a)</td><td>What is meant by project updating? Explain the process to be followed for updating and when to update?</td><td>L2</td><td>CO2</td><td>6 M</td></tr>
<tr><td>b)</td><td>Discuss about the factors affecting the project scheduling.</td><td>L2</td><td>CO2</td><td>6 M</td></tr>
<tr><td colspan="6"></td></tr>
</table>

UNIT-III

6 The following are the information available about the various activities of a network:

Activity	Normal Duration in days	Normal Cost Rs.	Crash Duration in days	Crash Cost Rs.
1-2	4	5000	3	5500
1-3	6	9000	1	10000
2-3	7	7000	1	8400
3-4	5	7500	3	6300
3-5	6	8400	4	10600
4-6	5	6600	4	5400
5-6	4	6000	3	4500

Project overhead costs are at Rs. 1200 per day.

Determine:

i) Direct Cost duration relationship

ii) Total Cost duration relationship & corresponding least cost network.

L4 | CO3 | 12 M

OR

7	a)	Explain the following terms: (i) indirect cost (ii) crash time (iii)free float limit (iv) operation time	L2	CO3	6 M
	b)	What is Resource levelling? Explain its significance in project management?	L2	CO3	6 M

UNIT-IV

8	a)	Write about the significance of construction management.	L2	CO4	7 M
	b)	Why safety is important in construction industry? Explain.	L2	CO4	5 M

OR					
9		Discuss in detail about the roles of various stake holders of construction industry in construction management.	L2	CO4	12 M
UNIT-V					
10		What are the various types of organization in construction industry? Explain each type, their merits and demerits in detail.	L2	CO5	12 M
OR					
11	a)	What are the problems that the labours face in construction industry? Explain.	L2	CO5	7 M
	b)	What the workmen's compensation act of 1923 says? Explain.	L2	CO5	5 M