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B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January 2024 Semester End Main Examinations

Programme: B.E.

Branch: Mechanical Engineering

Course Code: 20ME7DCPRM

Course: Project Management

Semester: VII

Duration: 3 hrs.

Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
 2. Missing data, if any, may be suitably assumed.
 3. Standard Normal Cumulative Probability Table is PERMITTED.

		UNIT - I			CO	PO	Marks																												
1	a)	Discuss the complete and contemporary view of project success.			<i>CO1</i>	<i>PO1</i>	10																												
	b)	Discuss the characteristic features of project.			<i>CO1</i>	<i>PO1</i>	10																												
		UNIT - II																																	
2	a)	With neat sketch describe the matrix organization structure highlighting its advantages and limitations.			<i>CO2</i>	<i>PO1</i>	10																												
	b)	Discuss the various formats and significance of work breakdown schedule.			<i>CO3</i>	<i>PO1</i>	10																												
		OR																																	
3	a)	Discuss the basic roles and responsibilities of a project manager.			<i>CO2</i>	<i>PO1</i>	10																												
	b)	Explain the steps involved in scope management with suitable examples.			<i>CO3</i>	<i>PO1</i>	10																												
		UNIT - III																																	
4	a)	Represent schematically the errors occurring in a network diagram and explain the same.			<i>CO3</i>	<i>PO1</i>	05																												
	b)	The following table shows the jobs of the project with duration in days. Draw the network, determine critical path and all floats.			<i>CO3</i>	<i>PO1</i> <i>PO4</i>	15																												
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1- 2</td><td>1- 3</td><td>1- 4</td><td>2- 5</td><td>3- 7</td><td>4- 6</td><td>5- 7</td><td>5- 8</td><td>6- 7</td><td>6- 9</td><td>7- 10</td><td>8- 10</td><td>9- 10</td><td>10- 11</td><td>11- 12</td> </tr> <tr> <td>10</td><td>8</td><td>9</td><td>8</td><td>16</td><td>7</td><td>7</td><td>7</td><td>8</td><td>5</td><td>12</td><td>10</td><td>15</td><td>8</td><td>5</td> </tr> </table>			1- 2	1- 3	1- 4	2- 5	3- 7	4- 6	5- 7	5- 8	6- 7	6- 9	7- 10	8- 10	9- 10	10- 11	11- 12	10	8	9	8	16	7	7	7	8	5	12	10	15	8	5	
1- 2	1- 3	1- 4	2- 5	3- 7	4- 6	5- 7	5- 8	6- 7	6- 9	7- 10	8- 10	9- 10	10- 11	11- 12																					
10	8	9	8	16	7	7	7	8	5	12	10	15	8	5																					
		OR																																	
5	a)	Define Merge and burst events using the example of a network diagram.			<i>CO3</i>	<i>PO1</i>	05																												

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

	b)	<p>The following table gives the activities of a construction project. Calculate the following:</p> <p>a) Minimum and normal project length.</p> <p>b) Determine the crashing costs.</p> <p>c) What is the optimal project duration of each job?</p> <p>Overhead of the project is Rs. 60 per day.</p> <table border="1"> <thead> <tr> <th>Activity</th><th>Normal duration (days)</th><th>Crash duration (days)</th><th>Cost of crashing (Rs. per day)</th></tr> </thead> <tbody> <tr> <td>1-2</td><td>9</td><td>6</td><td>20</td></tr> <tr> <td>1-3</td><td>8</td><td>5</td><td>25</td></tr> <tr> <td>1-4</td><td>15</td><td>10</td><td>30</td></tr> <tr> <td>2-4</td><td>5</td><td>3</td><td>10</td></tr> <tr> <td>3-4</td><td>10</td><td>6</td><td>15</td></tr> <tr> <td>4-5</td><td>2</td><td>1</td><td>40</td></tr> </tbody> </table>	Activity	Normal duration (days)	Crash duration (days)	Cost of crashing (Rs. per day)	1-2	9	6	20	1-3	8	5	25	1-4	15	10	30	2-4	5	3	10	3-4	10	6	15	4-5	2	1	40	<i>CO3</i>	<i>PO1</i> <i>PO4</i>	15
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		UNIT - IV																															
6	a)	Discuss different types of costs in budgeting.	<i>CO4</i> <i>CO5</i>	<i>PO1</i>	10																												
	b)	Explain the various methods of cost estimation.	<i>CO4</i> <i>CO5</i>	<i>PO1</i>	10																												
		UNIT - V																															
7	a)	Explain the components and decisions to be made with respect to supply chain management.	<i>CO4</i> <i>CO5</i>	<i>PO1</i>	10																												
	b)	Explain with example how to plan procurement management and the significance of the same.	<i>CO4</i> <i>CO5</i>	<i>PO1</i>	10																												
