U.S.N.										

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

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester : VII**

Branch: Mechanical Engineering **Duration: 3 hrs.**

Course Code: 20ME7DCPRM **Max Marks: 100**

Course: Project Management

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

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.

		UNIT - I	CO	PO	Marks
1	a)	Explain Project management. Further explain different roles required in project management.	CO1	PO1	**10**
	b)	With the help of a neat sketch, explain different phases of project life cycle.	CO1	PO1	**10**
		OR			
2	a)	Explain how projects are selected and prioritized.	CO1	PO1	**10**
	b)	Explain how the success and failures of a project is defined.	CO1	PO1	**10**
		UNIT - II			
3	a)	Explain the advantages and disadvantages of different organizational structures in project management.	CO1	PO1	**10**
	b)	Explain the importance of organizational culture on Project Management.	CO1	PO1	**10**
		OR			
4	a)	Discuss the importance of Traditional project team roles in project management.	CO1	PO1	**10**
	b)	Explain the different organizational structures in project management.	CO1	PO1	**10**
		UNIT - III			
5	a)	Explain the different time estimates in PERT.	CO3	PO3	**08**

<table>
<tr><td></td><td></td><td>b)</td><td>Determine the optimum project duration (days) and cost (Rs) for the following project. Indirect cost is Rs 70 per day.
<table>
<tr><th rowspan="2">Activities</th><th colspan="2">Normal</th><th colspan="2">Crash</th></tr>
<tr><th>Time</th><th>Cost</th><th>Time</th><th>Cost</th></tr>
<tr><td>1-2</td><td>8</td><td>100</td><td>6</td><td>200</td></tr>
<tr><td>1-3</td><td>4</td><td>150</td><td>2</td><td>350</td></tr>
<tr><td>2-4</td><td>2</td><td>50</td><td>1</td><td>90</td></tr>
<tr><td>2-5</td><td>10</td><td>100</td><td>5</td><td>400</td></tr>
<tr><td>3-4</td><td>5</td><td>100</td><td>1</td><td>200</td></tr>
<tr><td>4-5</td><td>3</td><td>80</td><td>1</td><td>100</td></tr>
</table></td><td>CO3</td><td>PO3</td><td>12</td></tr>
<tr><td></td><td></td><td></td><td>OR</td><td></td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>a)</td><td>A project consists of the following activities shown in table, duration in weeks.
<table>
<tr><th>ACTIVITY</th><th>Immediate Predecessor</th><th>Duration(weeks)</th></tr>
<tr><td>A</td><td>--</td><td>3</td></tr>
<tr><td>B</td><td>A</td><td>6</td></tr>
<tr><td>C</td><td>A</td><td>4</td></tr>
<tr><td>D</td><td>A</td><td>3</td></tr>
<tr><td>E</td><td>B,C,D</td><td>1</td></tr>
<tr><td>F</td><td>A</td><td>4</td></tr>
<tr><td>G</td><td>D</td><td>5</td></tr>
<tr><td>H</td><td>A</td><td>5</td></tr>
<tr><td>I</td><td>H</td><td>1</td></tr>
<tr><td>J</td><td>G</td><td>2</td></tr>
</table>
Draw the project network and tabulate early and late schedule for all activities. What is project duration and critical path?</td><td>CO3</td><td>PO3</td><td>14</td></tr>
<tr><td></td><td></td><td>b)</td><td>Differentiate between PERT and CPM.</td><td>CO3</td><td>PO1</td><td>06</td></tr>
<tr><td></td><td></td><td></td><td>UNIT - IV</td><td></td><td></td><td></td></tr>
<tr><td></td><td>7</td><td>a)</td><td>Discuss the different types of costs associated with projects?</td><td>CO4</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td>b)</td><td>Highlight the importance of project cost management plan.</td><td>CO4</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td></td><td>OR</td><td></td><td></td><td></td></tr>
<tr><td></td><td>8</td><td>a)</td><td>Describe the project cost estimating issues.</td><td>CO4</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td>b)</td><td>List and describe the methods of estimating costs.</td><td>CO4</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td></td><td>UNIT - V</td><td></td><td></td><td></td></tr>
<tr><td></td><td>9</td><td>a)</td><td>Explain any four important types of contracts in Project management.</td><td>CO5</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td>b)</td><td>Explain factors affecting supply chain management.</td><td>CO5</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td></td><td>OR</td><td></td><td></td><td></td></tr>
<tr><td></td><td>10</td><td>a)</td><td>Explain the “Make or Buy” decision process.</td><td>CO5</td><td>PO1</td><td>10</td></tr>
<tr><td></td><td></td><td>b)</td><td>Explain the sources of potential suppliers.</td><td>CO5</td><td>PO1</td><td>10</td></tr>
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