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

Autonomous Institute Affiliated to VTU

## June 2025 Semester End Main Examinations

**Programme: B.E.**

**Semester : VII**

**Branch: Institutional Elective**

**Duration: 3 hrs.**

**Course Code: 24ME7OEP RM**

**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.

		<b>UNIT - I</b>	<b>CO</b>	<b>PO</b>	<b>Marks</b>
1	a)	How can project work be described?	CO1	PO1	<b>10</b>
	b)	Describe the characteristic features of a project.	CO1	PO1	<b>10</b>
<b>OR</b>					
2	a)	Describe the various types of projects.	CO1	PO1	<b>10</b>
	b)	Explain the project roles.	CO1	PO1	<b>10</b>
		<b>UNIT - II</b>			
3	a)	Describe the skills and abilities of a project manager.	CO2	PO1	<b>10</b>
	b)	Elaborate the authorities required for a project manager.	CO2	PO1	<b>10</b>
<b>OR</b>					
4	a)	Describe the types of project organizations.	CO2	PO1	<b>10</b>
	b)	Elaborate the procedures for tendering and selection of contractors.	CO2	PO1	<b>10</b>
		<b>UNIT - III</b>			
5	a)	Define 1) Merge event 2) Burst event 3) Looping 4) Dangling 5) Redundant activity.	CO3	PO1	<b>10</b>

**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>A project has the following scheduling. Construct the network, determine the critical path and duration of the project.</p> <table border="1"> <tr> <td>Activity</td><td>1-2</td><td>1-3</td><td>1-4</td><td>2-5</td><td>3-6</td><td>3-7</td><td>4-6</td><td>5-8</td><td>6-9</td><td>7-8</td><td>8-9</td></tr> <tr> <td>Time</td><td>2</td><td>2</td><td>1</td><td>4</td><td>8</td><td>5</td><td>3</td><td>1</td><td>5</td><td>4</td><td>3</td></tr> </table>	Activity	1-2	1-3	1-4	2-5	3-6	3-7	4-6	5-8	6-9	7-8	8-9	Time	2	2	1	4	8	5	3	1	5	4	3	CO3	PO6	<b>10</b>								
Activity	1-2	1-3	1-4	2-5	3-6	3-7	4-6	5-8	6-9	7-8	8-9																										
Time	2	2	1	4	8	5	3	1	5	4	3																										
		<b>OR</b>																																			
6	a)	Differentiate PERT and CPM.	CO3	PO1	<b>10</b>																																
	b)	<p>The three time estimates of a certain project are given below.</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>To</th> <th>Tm</th> <th>Tp</th> </tr> </thead> <tbody> <tr> <td>0-1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>1-3</td> <td>15</td> <td>16</td> <td>17</td> </tr> <tr> <td>1-2</td> <td>3</td> <td>6</td> <td>9</td> </tr> <tr> <td>1-4</td> <td>6</td> <td>10</td> <td>14</td> </tr> <tr> <td>2-3</td> <td>4</td> <td>8</td> <td>12</td> </tr> <tr> <td>3-4</td> <td>3</td> <td>5</td> <td>7</td> </tr> <tr> <td>4-5</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table> <p>1) Draw the network and find the critical path. 2) If the scheduled time for the end event is equal to the earliest expected time of the last event, find the probability of completion of the project work. 3) If the scheduled time is 28 days, find the probability of completion of the project work.</p>	Activity	To	Tm	Tp	0-1	2	3	4	1-3	15	16	17	1-2	3	6	9	1-4	6	10	14	2-3	4	8	12	3-4	3	5	7	4-5	2	3	4	CO3	PO6	<b>10</b>
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		<b>UNIT - IV</b>																																			
7	a)	Elaborate the various types of costs.	CO4	PO1	<b>10</b>																																
	b)	Describe the project cost estimating issues.	CO4	PO1	<b>10</b>																																
		<b>OR</b>																																			
8	a)	List and describe the methods of estimating costs.	CO4	PO1	<b>10</b>																																
	b)	How do you determine budget? Describe.	CO4	PO1	<b>10</b>																																
		<b>UNIT - V</b>																																			
9	a)	List and describe the various types of contracts.	CO5	PO1	<b>10</b>																																
	b)	How do you improve the project supply chains? Explain.	CO5	PO1	<b>10</b>																																
		<b>OR</b>																																			
10	a)	Describe the plan procurement management.	CO5	PO1	<b>10</b>																																
	b)	How do you conduct procurements? List and describe.	CO5	PO1	<b>10</b>																																