

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

Autonomous Institute Affiliated to VTU

**October 2024 Supplementary Examinations****Programme: B.E.****Branch: Chemical Engineering****Course Code: 22CH6HSPMF****Course: PROJECT MANAGEMENT AND FINANCE****Semester: VI****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 Tables allowed.

<b>Important Note:</b> 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>UNIT-I</b>	<b>CO</b>	<b>PO</b>	<b>Marks</b>
	1	a)	Discuss the concept of the triple constraints in project management.	CO 1	PO9	<b>06</b>
		b)	Describe strategies a project manager can use to balance these constraints effectively to ensure project success.	CO 1	PO9	<b>04</b>
		c)	What is resource allocation in the context of project management, and how does it contribute to project success? Discuss the benefits of effective resource allocation and outline the process involved in allocating resources efficiently within a project.	CO 1	PO9	<b>10</b>
			<b>UNIT-II</b>			
	2	a)	List the factors to be considered for conducting a market and demand analysis of a project. Explain briefly.	CO 2	PO10	<b>10</b>
		b)	Elucidate the concept of technical analysis related to project management.	CO 2	PO10	<b>10</b>
			<b>UNIT-III</b>			
	3	a)	Differentiate between the cost of debt and the cost of equity. Discuss the various methods used to calculate each.	CO 3	PO11	<b>10</b>
		b)	What are the primary factors considered when evaluating investment criteria in project management? Substantiate their impact on decision making processes.	CO 3	PO11	<b>10</b>
			<b>UNIT-IV</b>			
	4	a)	Define venture capital fund. Discuss the analysis of the risks associated with venture capital investments.	CO 3	PO11	<b>10</b>
		b)	Explain the concept of the time value of money. How does it impact financial decision-making in engineering projects? Illustrate your answer with an example showing the calculation of the present value and future value of a cash flow.	CO 3	PO11	<b>10</b>
			<b>OR</b>			

5	a)	List the various methods and means available for raising capital to finance a project. Explain each method in detail.	CO 3	PO11	10																																	
	b)	Enumerate and explain the various types of audits and audit reports used for the project performance evaluation.	CO 3	PO11	10																																	
		<b>UNIT-V</b>																																				
6	a)	Explain the key steps involved in effectively prioritizing projects using the ABC analysis method and VED analysis in decision-making processes.	CO 4	PO4	08																																	
	b)	<div>The following details are available regarding a project:<table><tr><th>Activity</th><th>Predecessor Activity</th><th>Duration (Weeks)</th></tr><tr><td>A</td><td>-</td><td>12</td></tr><tr><td>B</td><td>A</td><td>7</td></tr><tr><td>C</td><td>A</td><td>11</td></tr><tr><td>D</td><td>A</td><td>8</td></tr><tr><td>E</td><td>A</td><td>6</td></tr><tr><td>F</td><td>B</td><td>10</td></tr><tr><td>G</td><td>C</td><td>9</td></tr><tr><td>H</td><td>D,F</td><td>14</td></tr><tr><td>I</td><td>E,G</td><td>13</td></tr><tr><td>J</td><td>H,I</td><td>16</td></tr></table><div>Determine the earliest and latest times, the total float for each activity, the critical activities and the project completion time.</div></div>	Activity	Predecessor Activity	Duration (Weeks)	A	-	12	B	A	7	C	A	11	D	A	8	E	A	6	F	B	10	G	C	9	H	D,F	14	I	E,G	13	J	H,I	16	CO 4	PO4	12
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7	a)	<div>Using Gantt Chart, estimate the project completion time for the following project data:<table><tr><th>Activity</th><th>A</th><th>B</th><th>C</th><th>D</th><th>E</th><th>F</th><th>G</th><th>H</th><th>I</th><th>J</th></tr><tr><td>Preceding activity</td><td>None</td><td>None</td><td>A,B</td><td>A</td><td>C</td><td>A,B</td><td>F</td><td>G</td><td>G</td><td>I</td></tr><tr><td>Duration (Days)</td><td>40</td><td>20</td><td>15</td><td>25</td><td>15</td><td>25</td><td>10</td><td>15</td><td>10</td><td>15</td></tr></table></div>	Activity	A	B	C	D	E	F	G	H	I	J	Preceding activity	None	None	A,B	A	C	A,B	F	G	G	I	Duration (Days)	40	20	15	25	15	25	10	15	10	15	CO 4	PO4	10
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	b)	What role does inventory analysis play in project management and financial decision-making, and how does it impact overall project success? Explain.	CO 4	PO4	10																																	

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