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

Autonomous Institute Affiliated to VTU

## July 2023 Semester End Main Examinations

**Program: B.E.**

**Branch: Chemical Engineering**

**Course Code: 19CH8HSPMF**

**Course: Project Management and Finance**

**Semester: VIII**

**Duration: 3 hrs.**

**Max Marks: 100**

**Date: 04.07.2023**

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

<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)	What are the different stages in the life cycle of a project? Highlight the major decisions to be taken at each of these stages.	CO1	PO11	10
		b)	How the triple constraints affect the project? How triple constraints are handled in project management?	CO1	PO11	10
			<b>UNIT – II</b>			
	2	a)	What factors should be considered when conducting a market and demand analysis for a project? Explain briefly.	CO3	PO10	10
		b)	Explain the key components and steps involved in conducting a thorough technical analysis of a project.	CO3	PO10	10
			<b>UNIT – III</b>			
	3	a)	Describe the concept of time value of money and explain its significance in financial decision-making.	CO5	PO11	10
		b)	Explain the various methods to determine the cost of equity and cost of debt.	CO5	PO11	10
			<b>UNIT – IV</b>			
	4	a)	Define venture capital fund and discuss the analysis of the risks associated with venture capital investments.	CO5	PO11	08
		b)	What are the various methods and means available for raising Capital to finance a project?	CO5	PO11	12
			<b>OR</b>			

5	a)	Define credit risk analysis and discuss the most effective strategies for mitigating such risks.	CO2	PO9	10																																																				
	b)	Consider an appropriate corporate case and provide a concise overview of the project, followed by a thorough analysis of its financial issues.	CO2	PO9	10																																																				
		UNIT – V																																																							
6	a)	<div>A project has the following characteristics</div> <table><tr><th>Activity</th><th>Most optimistic Time (a) in weeks</th><th>Most pessimistic time (b) in weeks</th><th>Most likely time (m) in weeks</th></tr><tr><td>1-2</td><td>1</td><td>5</td><td>1.5</td></tr><tr><td>2-3</td><td>1</td><td>3</td><td>2</td></tr><tr><td>2-4</td><td>1</td><td>5</td><td>3</td></tr><tr><td>3-5</td><td>3</td><td>5</td><td>4</td></tr><tr><td>4-5</td><td>2</td><td>4</td><td>3</td></tr><tr><td>4-6</td><td>3</td><td>7</td><td>5</td></tr><tr><td>5-7</td><td>4</td><td>6</td><td>5</td></tr><tr><td>6-7</td><td>6</td><td>8</td><td>7</td></tr><tr><td>7-8</td><td>2</td><td>6</td><td>4</td></tr><tr><td>7-9</td><td>5</td><td>8</td><td>6</td></tr><tr><td>8-10</td><td>1</td><td>3</td><td>2</td></tr><tr><td>9-10</td><td>3</td><td>7</td><td>5</td></tr></table> <div>I. Draw the network and determine critical path. II. Calculate the expected variances for each activity III. Find the expected project completion time IV. Calculate the probability that the project will be completed at least 3 weeks before expected duration.</div>	Activity	Most optimistic Time (a) in weeks	Most pessimistic time (b) in weeks	Most likely time (m) in weeks	1-2	1	5	1.5	2-3	1	3	2	2-4	1	5	3	3-5	3	5	4	4-5	2	4	3	4-6	3	7	5	5-7	4	6	5	6-7	6	8	7	7-8	2	6	4	7-9	5	8	6	8-10	1	3	2	9-10	3	7	5	CO6	PO4	14
Activity	Most optimistic Time (a) in weeks	Most pessimistic time (b) in weeks	Most likely time (m) in weeks																																																						
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9-10	3	7	5																																																						
	b)	Explain, how does the use of a Gantt chart contribute to effective project management and scheduling?	CO6	PO4	06																																																				
		OR																																																							
7	a)	Elucidate the key steps to effectively prioritize projects using the ABC analysis method?	CO4	PO11	08																																																				
	b)	What are the advantages and significance of utilizing VED analysis In decision-making processes?"	CO4	PO11	06																																																				
	c)	Explain the concept of Economic Order Quantity (EOQ) and its relevance to project management and finance?	CO4	PO11	06																																																				

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