



**Fourth Semester MCA Degree Examination, June/July 2024**  
**Software Project Management**

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
 2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C														
Q.1	a.	What is Project? What are the characteristics of a project?	6	L2	CO1														
	b.	How do you categorize the software products?	4	L2	CO1														
	c.	Explain the different activities covered by software project management.	10	L2	CO1														
<b>OR</b>																			
Q.2	a.	What are the differences between Traditional versus Modern Management practices? Mention few traditional and few modern project management tools.	6	L2	CO1														
	b.	Explain plan and methodologies of software project management with a proper example.	4	L2	CO1														
	c.	Explain project control life cycle with a neat diagram.	10	L2	CO1														
<b>Module – 2</b>																			
Q.3	a.	How do you evaluate individual project? Explain the same.	6	L2	CO1														
	b.	Use 10% discount rate and calculate the NPV for the given project. <table border="1" style="margin: 5px auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">Project – Cash flow</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">-100000</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">10000</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">10000</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">10000</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">20000</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">100000</td> </tr> </tbody> </table>	Year	Project – Cash flow	0	-100000	1	10000	2	10000	3	10000	4	20000	5	100000	4	L2	CO1
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c.	Explain different accounting concepts with an example.	10	L2	CO1															
<b>OR</b>																			
Q.4	a.	How net profit payback period, return on investment, net present value, internal rate of return are used to evaluate cost benefit of a project.	15	L2	CO1														
	b.	How allocation of resources within a program are managed in software project management.	5	L2	CO1														
<b>Module – 3</b>																			
Q.5	a.	Explain how activity planning is carried out with a neat diagram.	7	L3	CO2														

	b.	Explain forward pass with an example.	3	L3	CO2																											
	c.	Explain activity on arrow networks rules and conventions.	10	L3	CO2																											
<b>OR</b>																																
Q.6	a.	Draw CPM network and activity table after forward pass and backward pass. Explain the same.	15	L3	CO2																											
		<table border="1"> <thead> <tr> <th>Activity</th> <th>Duration (weeks)</th> <th>Precedents</th> </tr> </thead> <tbody> <tr> <td>i) Hardware selection</td> <td>6</td> <td></td> </tr> <tr> <td>ii) System hardware</td> <td>4</td> <td></td> </tr> <tr> <td>iii) Install hardware</td> <td>3</td> <td>A</td> </tr> <tr> <td>iv) Data Migration</td> <td>4</td> <td>B</td> </tr> <tr> <td>v) Draft office procedures</td> <td>3</td> <td>B</td> </tr> <tr> <td>vi) Recruit staff</td> <td>10</td> <td></td> </tr> <tr> <td>vii) User training</td> <td>3</td> <td>E, F</td> </tr> <tr> <td>viii) Install and test system</td> <td>2</td> <td>C, D</td> </tr> </tbody> </table>				Activity	Duration (weeks)	Precedents	i) Hardware selection	6		ii) System hardware	4		iii) Install hardware	3	A	iv) Data Migration	4	B	v) Draft office procedures	3	B	vi) Recruit staff	10		vii) User training	3	E, F	viii) Install and test system	2	C, D
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b.	What are the different methods to identify the risk? Explain the same.	5	L3	CO2																												
<b>Module – 4</b>																																
Q.7	a.	Explain Red/Amber/Green method for reviewing activities of any project.	7	L2	CO3																											
	b.	Explain cost monitoring chart.	3	L2	CO3																											
	c.	Construct Gantt chart, slip chart and time line chart for any project and explain how these charts help in visualizing the progress of a report.	10	L2	CO3																											
<b>OR</b>																																
Q.8	a.	What is earned value analysis and explain the concept with earned value tracking chart.	10	L2	CO3																											
	b.	Explain simple change control procedures for operational systems.	10	L2	CO3																											
<b>Module – 5</b>																																
Q.9	a.	How do you select a right person for a job? Explain the same.	6	L2	CO4																											
	b.	What models help to motivate the people to work and how?	4	L2	CO4																											
	c.	Explain the Oldham – Hackman Job characteristics models and organization behaviour.	10	L2	CO4																											
<b>OR</b>																																
Q.10	a.	How and why health and safety issues are more prominent in construction and in ICT development.	6	L2	CO4																											
	b.	How recruitment process takes place in a company?	4	L2	CO4																											
	c.	What are the different powers and styles of a leader in a company?	10	L2	CO4																											

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