



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2021**

**Course: Project Management & Contract Administration**

**Semester: III**

**Program: MBA (PM)**

**Time: 03 Hours**

**Course code: LSCM 8001**

**Max. Marks: 100**

**Instructions: Use of calculator is allowed**

**SECTION A (Choose the correct option)**

		<b>Marks</b>	<b>CO</b>
Q 1.1	Project _____ is the application of knowledge, skills, tools and techniques to project activities to meet project requirements. (a) Management (b) Planning (c) Execution (d) Controlling	<b>2</b>	<b>CO1</b>
Q 1.2	There are _____ project management process groups according to PMI-PMBOK. (a) Four (b) Five (c) Six (d) Seven	<b>2</b>	<b>CO1</b>
Q 1.3	Which of the following is not a project manager's competency category according to IPMA? (a) Technical (b) Behavioral (c) Managerial (d) Contextual	<b>2</b>	<b>CO1</b>
Q 1.4	_____ is a collection of generally sequential and sometimes overlapping project phases. (a) Project Charter (b) Project Execution Plan (c) Project Scope Statement (d) Project Life Cycle	<b>2</b>	<b>CO1</b>
Q 1.5	Stakeholder influence, risk, and uncertainty _____ as the project progresses. (a) Decreases (b) Increases (c) does not change (d) are independent	<b>2</b>	<b>CO1</b>
Q 1.6	Following is not one among Triple Constraints of Project Management: (a) Time (b) Stakeholders (c) Cost (d) Scope	<b>2</b>	<b>CO1</b>
Q 1.7	Which of the following is a non-discounted cash flow technique of project financial evaluation? (a) NPV	<b>2</b>	<b>CO1</b>

	(b) IRR (c) Pay Back Period (d) None of them																														
Q 1.8	There are _____ project management knowledge areas according to PMI-PMBOK. (a) Seven (b) Eight (c) Nine (d) Ten	2	CO1																												
Q 1.9	The outcome of project planning and organizing phase is _____. (a) Project Charter (b) Project Management Plan (c) Accepted Deliverables (d) Archived Project Documents	2	CO1																												
Q 1.10	_____ plays a significant role in developing the initial scope statement and the project charter. (a) Project Manager (b) Project Engineer (c) Project Sponsor (d) All of them	2	CO1																												
<b>SECTION B</b>																															
Q 2	Distinguish between product scope & project scope.	5	CO2																												
Q 3	Classify the elements of Quality Costs	5																													
Q 4	Explain what a risk register is.	5																													
Q 5	Give a brief account of PM software's application in managing projects.	5	CO2																												
<b>SECTION-C</b>																															
Q 6	How a project identified and selected? What are the benefits of using project management tools & techniques in achieving project success? OR How digital transformation is disrupting project management and leaders? What are the tools available for successful digital Project Management?	10	CO3																												
Q 7	Consider the data of a project shown in the following table. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Immediate predecessor(s)</i></th> <th style="text-align: center;"><i>Time (weeks)</i></th> <th style="text-align: center;"><i>Cost (Rs.)</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">-</td> <td style="text-align: center;">7</td> <td style="text-align: center;">1800</td> </tr> <tr> <td style="text-align: center;">B</td> <td style="text-align: center;">-</td> <td style="text-align: center;">9</td> <td style="text-align: center;">3500</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">B</td> <td style="text-align: center;">5</td> <td style="text-align: center;">2500</td> </tr> <tr> <td style="text-align: center;">D</td> <td style="text-align: center;">A</td> <td style="text-align: center;">8</td> <td style="text-align: center;">4000</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;">C</td> <td style="text-align: center;">9</td> <td style="text-align: center;">3000</td> </tr> <tr> <td style="text-align: center;">F</td> <td style="text-align: center;">B</td> <td style="text-align: center;">11</td> <td style="text-align: center;">3000</td> </tr> </tbody> </table> <p>If the indirect cost per week is Rs. 350, find the total cost of the project.</p>	<i>Activity</i>	<i>Immediate predecessor(s)</i>	<i>Time (weeks)</i>	<i>Cost (Rs.)</i>	A	-	7	1800	B	-	9	3500	C	B	5	2500	D	A	8	4000	E	C	9	3000	F	B	11	3000	10	CO3
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Q 8	<p>A project has a budget of Rs. 7 Lakhs and planned to be completed in 10 months. The following table shows the cumulative values (in INR) at end of 1<sup>st</sup> &amp; 2<sup>nd</sup> month:</p> <table border="1" data-bbox="407 264 1110 466"> <thead> <tr> <th>Month</th> <th>Planned Cost</th> <th>EV</th> <th>Actual Cost</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>70,000</td> <td>20,000</td> <td>25,000</td> </tr> <tr> <td>2</td> <td>140,000</td> <td>70,000</td> <td>100,000</td> </tr> </tbody> </table> <p>(a) Calculate the cost variance, schedule variance, CPI &amp; SPI at the end of second month.  (b) At the end of the 2<sup>nd</sup> month, estimate the estimate the cost at completion and the likely time of completion of project if efficiency remains the same.  (c) Estimate likely time for completion of project if efficiency becomes 100% from next month.</p>	Month	Planned Cost	EV	Actual Cost	1	70,000	20,000	25,000	2	140,000	70,000	100,000	<b>10</b>	<b>CO3</b>
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**SECTION-D**

Q 9	<p>The estimated investments and cash inflows of two commercial projects are tabulated below. Calculate the payback period and NPV of these projects and rate them according to each criterion. The cost of capital is 12% per annum. (All figures in INR Lakhs)</p> <table border="1" data-bbox="204 911 1317 1075"> <thead> <tr> <th>Project Name</th> <th>Initial Investment</th> <th>Year 1</th> <th>Year 2</th> <th>Year 3</th> <th>Year 4</th> <th>Year 5</th> </tr> </thead> <tbody> <tr> <td>CHANDRALOK</td> <td style="text-align: center;"><b>4000</b></td> <td style="text-align: center;"><b>1600</b></td> <td style="text-align: center;"><b>1200</b></td> <td style="text-align: center;"><b>1200</b></td> <td style="text-align: center;"><b>1200</b></td> <td style="text-align: center;"><b>1200</b></td> </tr> <tr> <td>SURYA NAGRI</td> <td style="text-align: center;"><b>4000</b></td> <td style="text-align: center;"><b>2000</b></td> <td style="text-align: center;"><b>2000</b></td> <td style="text-align: center;"><b>2000</b></td> <td style="text-align: center;"><b>600</b></td> <td style="text-align: center;"><b>400</b></td> </tr> </tbody> </table>	Project Name	Initial Investment	Year 1	Year 2	Year 3	Year 4	Year 5	CHANDRALOK	<b>4000</b>	<b>1600</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	SURYA NAGRI	<b>4000</b>	<b>2000</b>	<b>2000</b>	<b>2000</b>	<b>600</b>	<b>400</b>	<b>15</b>	<b>CO4</b>
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Q 10	<p>Critically examine the components of Detailed Project Report of a Hydropower Plant / Thermal Power Plant.</p> <p style="text-align: center;">OR</p> <p>Giving examples identify various options for procurement in projects. Compare and contrast various types of contracts &amp; their suitability.</p>	<b>15</b>	<b>CO4</b>
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