

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2023**

**Course: Project Management & Contract Administration**

**Semester: IV**

**Program: MBA (ALL)**

**Time: 03 Hrs.**

**Course Code: LSCM 8001**

**Max. Marks: 100**

**Instructions: Usage of calculator and graph paper allowed.**

**SECTION A**

**10Qx2M= 20 Marks**

S. No.		Marks	CO
Q 1	<i>Fill in the blanks. Each blank carries 2 marks..</i>		
1.1	A project is a series of _____ directed to accomplishment of a desired objective.	<b>2</b>	<b>CO1</b>
1.2	If the optimistic time estimate of an activity is 14 days, pessimistic time estimate is 24 days, expected duration of the activity is 17 days then most likely time estimate is _____.	<b>2</b>	<b>CO1</b>
1.3	According to PMBOK, there are total _____ processes.	<b>2</b>	<b>CO1</b>
1.4	If CPI of a project is more than 1.0 then the project is _____ budget.	<b>2</b>	<b>CO1</b>
1.5	In CPM both activities and their time duration are _____ (deterministic/probabilistic).	<b>2</b>	<b>CO1</b>
1.6	The expected project completion time is 30 weeks; the probability of being completed in 31 weeks will be _____ than 0.5.	<b>2</b>	<b>CO1</b>
1.7	The critical activities in a project network have _____ slack time.	<b>2</b>	<b>CO1</b>
1.8	If SPI of a project is less than 1.0 then the project is _____ time schedule.	<b>2</b>	<b>CO1</b>
1.9	PMBOK stands for _____.	<b>2</b>	<b>CO1</b>
1.10	If cost of capital = IRR, then Net Present Value = _____.	<b>2</b>	<b>CO1</b>

**SECTION B**

**4Qx5M= 20 Marks**

2.1	Classify various methods of project financial evaluation and their applicability	<b>5</b>	CO2
2.2	Discuss the qualities & competencies of a good project manager.	<b>5</b>	CO2
2.3	Distinguish between CPM & PERT.	<b>5</b>	CO2
2.4	Give a brief overview of Project Management soft wares.	<b>5</b>	CO2

**SECTION-C**  
**3Qx10M= 30 Marks**

3.1	<p>A simple Project involves preparation of 500 drawings, each requires equal time and efforts. The standard cost is Rs. 2000/drawing and work rate is 10 drawings / week / draftsman and total 5 draftsmen are available. Calculate Budgeted cost of project and Planned duration of project</p> <p>At the end of Week 4, 180 drawings were prepared at the total cost of Rs. 3.42 Lakhs Lakhs. Determine PV, EV, CV, SV and then estimate project completion cost and time.</p> <p>However, at the end of Week 10, all 500 drawings were prepared incurring total cost of Rs. 12 Lakhs. find out cost variance, schedule variance and then comment on the objective of the project monitoring and control.</p>	<b>10</b>	<b>CO3</b>
3.2	Discuss the impacts of an infrastructure project on environment and economy with suitable examples.	<b>10</b>	<b>CO3</b>
3.3	How can we ensure project quality? Explain the process of project quality management.	<b>10</b>	<b>CO3</b>

**SECTION-D**  
**2Qx15M = 30 Marks**

4.1	<p>Consider the data of a project shown in the following table.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"><i>Activity</i></th> <th rowspan="2"><i>Immediate predecessor(s)</i></th> <th colspan="2"><i>Time (weeks)</i></th> <th colspan="2"><i>Cost (Rs.)</i></th> </tr> <tr> <th><i>Normal</i></th> <th><i>Crash</i></th> <th><i>Normal</i></th> <th><i>Crash</i></th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-</td> <td>8</td> <td>6</td> <td>4000</td> <td>4300</td> </tr> <tr> <td>B</td> <td>-</td> <td>5</td> <td>4</td> <td>3000</td> <td>3150</td> </tr> <tr> <td>C</td> <td>-</td> <td>10</td> <td>8</td> <td>6000</td> <td>6800</td> </tr> <tr> <td>D</td> <td>A</td> <td>6</td> <td>5</td> <td>4000</td> <td>4200</td> </tr> <tr> <td>E</td> <td>C</td> <td>7</td> <td>7</td> <td>5000</td> <td>-</td> </tr> <tr> <td>F</td> <td>D</td> <td>9</td> <td>7</td> <td>7000</td> <td>7550</td> </tr> <tr> <td>G</td> <td>B,E</td> <td>3</td> <td>2</td> <td>2000</td> <td>2100</td> </tr> </tbody> </table> <p>If the indirect cost per week is Rs. 350, find the optimal crashed result of the project network.</p>	<i>Activity</i>	<i>Immediate predecessor(s)</i>	<i>Time (weeks)</i>		<i>Cost (Rs.)</i>		<i>Normal</i>	<i>Crash</i>	<i>Normal</i>	<i>Crash</i>	A	-	8	6	4000	4300	B	-	5	4	3000	3150	C	-	10	8	6000	6800	D	A	6	5	4000	4200	E	C	7	7	5000	-	F	D	9	7	7000	7550	G	B,E	3	2	2000	2100	<b>15</b>	<b>CO4</b>
<i>Activity</i>	<i>Immediate predecessor(s)</i>			<i>Time (weeks)</i>		<i>Cost (Rs.)</i>																																																	
		<i>Normal</i>	<i>Crash</i>	<i>Normal</i>	<i>Crash</i>																																																		
A	-	8	6	4000	4300																																																		
B	-	5	4	3000	3150																																																		
C	-	10	8	6000	6800																																																		
D	A	6	5	4000	4200																																																		
E	C	7	7	5000	-																																																		
F	D	9	7	7000	7550																																																		
G	B,E	3	2	2000	2100																																																		
4.2	Plan the execution of the optimally crashed project in 4.1 with the help of a Gantt Chart and prepare the cost baseline.	<b>15</b>	<b>CO4</b>																																																				