

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2023

Course: Project Management & Contract Administration

Semester: II

Program: MBA (LSCM)

Time: 03 Hrs.

Course Code: LSCM 7026

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 _____ is a graphical model depicting the interrelationship between the various elements of the Project Work System.	2	CO1
1.2	_____ involves monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.	2	CO1
1.3	_____ Reserves are not included in the project budget. (Choose the correct option: Management / Contingency)	2	CO1
1.4	_____ models are used to estimate how much the product (or project) will cost based on physical attributes e.g. weight, volume, power, lines of code, price per sq. foot	2	CO1
1.5	The overall project costs broken down into the various major heads like materials, labour, equipment etc. is known as _____.	2	CO1
1.6	A _____ is an agreement between two or more parties that is binding on all the parties.	2	CO1
1.7	The _____ is a structured log that maintains summary of all identified risks that can affect the project along with relevant information to manage the risk.	2	CO1
1.8	Project Risk is an uncertain event or condition that, if it occurs has a positive or negative effect on projects _____.	2	CO1
1.9	_____ integrates cost, schedule and scope and used to forecast future performance and project completion dates.	2	CO1
1.10	The _____ is a thorough examination of the management of project, its methodology and procedures, its records, its budgets and expenditures and degree of completion.	2	CO1

SECTION B

4Qx5M = 20 Marks

2.1	Explain in brief features/characteristics of project.	5	CO2
2.2	Discuss the role of Project Sponsor in project acceptance and approval.	5	CO2
2.3	Distinguish between project scope & product scope.	5	CO2
2.4	Give a brief overview of Project Management soft wares.	5	CO2

SECTION-C
3Qx10M = 30 Marks

3.1	<p>The capital investment of Rs. 1 Crores for a project is sourced from following different sources:</p> <table border="0"> <tr> <td>Source</td> <td>Amount (Rs.)</td> <td>Cost</td> </tr> <tr> <td>Equity capital</td> <td>20 Lakhs</td> <td>15%</td> </tr> <tr> <td>Preference Capital</td> <td>30 Lakhs</td> <td>14%</td> </tr> <tr> <td>Debentures</td> <td>30 Lakhs</td> <td>12%</td> </tr> </table> <p>Remaining capital requirement are met through term loans got at 10% interest rate. The IRR of the project is 14%. Should the project be accepted or not?</p>	Source	Amount (Rs.)	Cost	Equity capital	20 Lakhs	15%	Preference Capital	30 Lakhs	14%	Debentures	30 Lakhs	12%	10	CO3
Source	Amount (Rs.)	Cost													
Equity capital	20 Lakhs	15%													
Preference Capital	30 Lakhs	14%													
Debentures	30 Lakhs	12%													
3.2	How undertaking infrastructure & logistics projects (transportation & warehouse etc.) can improve the supply chain efficiency in India?	10	CO3												
3.3	How we can identify, classify and manage project stakeholders?	10	CO3												

SECTION-D
2Qx15M = 30 Marks

4.1	<p>Consider the data of a project shown in the following table:</p> <table border="1" data-bbox="292 861 1185 1312"> <thead> <tr> <th>Activity</th> <th>Immediate Predecessors</th> <th>Duration (in Weeks)</th> <th>Budget Cost of Activity (Rs. Lakhs)</th> </tr> </thead> <tbody> <tr><td>A</td><td>-</td><td>8</td><td>8</td></tr> <tr><td>B</td><td>-</td><td>2</td><td>8</td></tr> <tr><td>C</td><td>B</td><td>5</td><td>10</td></tr> <tr><td>D</td><td>C</td><td>6</td><td>9</td></tr> <tr><td>E</td><td>A</td><td>4</td><td>12</td></tr> <tr><td>F</td><td>D,E</td><td>4</td><td>6</td></tr> <tr><td>G</td><td>D,E</td><td>1</td><td>1</td></tr> <tr><td>H</td><td>F</td><td>3</td><td>6</td></tr> <tr><td>Project</td><td></td><td></td><td>60</td></tr> </tbody> </table> <p>(i) Draw the network diagram and find critical path. (ii) Draw the Gantt chart showing cost break-up. (iii) Prepare the cumulative cost curve.</p>	Activity	Immediate Predecessors	Duration (in Weeks)	Budget Cost of Activity (Rs. Lakhs)	A	-	8	8	B	-	2	8	C	B	5	10	D	C	6	9	E	A	4	12	F	D,E	4	6	G	D,E	1	1	H	F	3	6	Project			60	15	CO4
Activity	Immediate Predecessors	Duration (in Weeks)	Budget Cost of Activity (Rs. Lakhs)																																								
A	-	8	8																																								
B	-	2	8																																								
C	B	5	10																																								
D	C	6	9																																								
E	A	4	12																																								
F	D,E	4	6																																								
G	D,E	1	1																																								
H	F	3	6																																								
Project			60																																								

4.2	<p>The progress status report of the same project at the end of given weeks is as follows:</p> <table border="1" data-bbox="211 1606 1234 1890"> <thead> <tr> <th>Activity</th> <th>% Work Completed</th> <th>Actual cost</th> <th>Activity</th> <th>% Work Completed</th> <th>Actual cost</th> </tr> </thead> <tbody> <tr> <td align="center" colspan="3">End of Week 5</td> <td align="center" colspan="3">End of Week 20</td> </tr> <tr> <td>A</td> <td>50</td> <td>5</td> <td>A</td> <td>100</td> <td>10</td> </tr> <tr> <td>B</td> <td>100</td> <td>10</td> <td>B</td> <td>100</td> <td>10</td> </tr> <tr> <td>C</td> <td>20</td> <td>2</td> <td>C</td> <td>100</td> <td>12</td> </tr> <tr> <td>Others</td> <td>0</td> <td>0</td> <td>D</td> <td>100</td> <td>11</td> </tr> </tbody> </table>	Activity	% Work Completed	Actual cost	Activity	% Work Completed	Actual cost	End of Week 5			End of Week 20			A	50	5	A	100	10	B	100	10	B	100	10	C	20	2	C	100	12	Others	0	0	D	100	11	15	CO4
Activity	% Work Completed	Actual cost	Activity	% Work Completed	Actual cost																																		
End of Week 5			End of Week 20																																				
A	50	5	A	100	10																																		
B	100	10	B	100	10																																		
C	20	2	C	100	12																																		
Others	0	0	D	100	11																																		

End of Week 10		
A	100	10
B	100	10
C	100	12
D	20	2
Others	0	0
End of Week 15		
A	100	10
B	100	10
C	100	12
D	100	11
E	100	15
Others	0	0

E	100	15
F	100	8
G	100	2
H	0	0
End of Week 22		
A	100	10
B	100	10
C	100	12
D	100	11
E	100	15
F	100	8
G	100	2
H	100	7

- (i) Compute the Cost Variance at 5th, 10th, 15th, 20th & 22nd week and the Schedule Variance at 5th, 10th, 15th & 20th week.
- (ii) Estimate cost at completion and time to completion on the basis of 5th, 10th, 15th & 20th week status.
- (iii) Comment upon the effectiveness of the project monitoring system based on the changes in the above indicators over time.