Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 05-12-2025 **Time:** 01:00pm – 04:00pm

School: SOC , SOIS	**Program:** BBA/BAV/BBB/BBD/BCM/BCA	
Course Code : CIV2004	**Course Name:** Integrated Project Management	
Semester: III & V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**18**	**4**	**25**	**20**	**33**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1.	What is a project?	2 Marks	L1	CO1
2.	List the principles of an organization.	2 Marks	L1	CO1
3.	What are the factors which usually lead to initiation of a project?	2 Marks	L1	CO1
4.	What are the 3 areas within the project manager's sphere of influence?	2 Marks	L1	CO1
5.	Define Project Scope Management.	2 Marks	L1	CO2
6.	What is WBS?	2 Marks	L1	CO2
7.	What are the different steps involved in Project Resource Management?	2 Marks	L1	CO5
8.	What is RBS?	2 Marks	L1	CO5
9.	What is quality?	2 Marks	L1	CO5
10.	What are the different quality management tools?	2 Marks	L1	CO5

Part B

Answer the Questions. **Total Marks 80M**

<table>
<tr><td>11.</td><td>a.</td><td>Explain any 2 organizational structures in detail.</td><td>10 Marks</td><td>L2</td><td>CO1</td></tr>
<tr><td colspan="6">Or</td></tr>
<tr><td>12.</td><td>a.</td><td>Explain the difference between a project manager and functional manager with examples.</td><td>10 Marks</td><td>L2</td><td>CO1</td></tr>
<tr><td>13.</td><td>a.</td><td>What is resource optimization? What are the two methods of resource optimization?</td><td>10 Marks</td><td>L2</td><td>CO5</td></tr>
<tr><td colspan="6">Or</td></tr>
<tr><td>14.</td><td>a.</td><td>Explain Total Quality Management.</td><td>10 Marks</td><td>L2</td><td>CO5</td></tr>
<tr><td>15.</td><td>a.</td><td>The following table shows the various activities of a project. Find the critical path and the project duration. Also calculate float for each activity.
<table>
<tr><th>Activity</th><th>Predecessor(s)</th><th>Duration (weeks)</th></tr>
<tr><td>A</td><td>-</td><td>2</td></tr>
<tr><td>B</td><td>A</td><td>6</td></tr>
<tr><td>C</td><td>-</td><td>4</td></tr>
<tr><td>D</td><td>B, C</td><td>12</td></tr>
<tr><td>E</td><td>D</td><td>6</td></tr>
<tr><td>F</td><td>E</td><td>4</td></tr>
<tr><td>G</td><td>E</td><td>3</td></tr>
<tr><td>H</td><td>F, G</td><td>10</td></tr>
<tr><td>I</td><td>H</td><td>5</td></tr>
<tr><td>J</td><td>I</td><td>8</td></tr>
</table></td><td>10 Marks</td><td>L3</td><td>CO3</td></tr>
<tr><td colspan="6">Or</td></tr>
<tr><td>16.</td><td>a.</td><td>For the set of activities below, draw the network diagram and determine the total project duration, identify the critical path, and calculate the floats for all activities.
<table>
<tr><th>Activity</th><th>Duration (days)</th><th>Predecessor</th></tr>
<tr><td>A</td><td>2</td><td>–</td></tr>
<tr><td>B</td><td>3</td><td>–</td></tr>
<tr><td>C</td><td>1</td><td>A</td></tr>
<tr><td>D</td><td>2</td><td>B</td></tr>
<tr><td>E</td><td>1</td><td>C</td></tr>
<tr><td>F</td><td>2</td><td>C</td></tr>
<tr><td>G</td><td>1</td><td>D, E, F</td></tr>
</table></td><td>10 Marks</td><td>L3</td><td>CO3</td></tr>
</table>

17.	a.	A project consists of the following activities and the three time estimates are as follows: **Activity / Predecessor(s) / Duration (days)** **t_o / t_m / t_p** A - 2 6 10 B - 4 6 12 C A 2 3 4 D A 2 4 6 E B, D 3 6 9 F B, C, D 6 10 14 G F 1 3 5 a. What is the expected duration of the project? b. Identify the critical path. c. Calculate the probability that the project will be completed within 23 days. d. What is the project duration within which the project can be finished with 45% probability?	15 Marks	L3	CO3
		Or			
18.	a.	The following are the time estimates and the precedence relationships of the activities in a project network: **Activity / Predecessor Activity / Optimistic time estimate (to days) / Most likely time estimate (tm days) / Pessimistic time estimate (tp days)** A - 2 4 6 B A 3 6 9 C A 8 10 12 D B 9 12 15 E C 8 9 10 F D, E 16 21 26 G F 2 5 8 H G 1 3 5 a. Draw the PERT network for the project. Find the critical path and mean duration. b. What is the probability of the project finishing within 50 days? c. What is the project duration within which the project can be finished with 85% probability?	15 Marks	L3	CO3

19.	a.	A software project involves developing 20 modules for ₹200 lakhs in 20 days. After 12 days, 9 modules are completed, and ₹130 lakhs have been spent. Calculate CV, SV, CPI, SPI, EPCC, ACC, and EPCT. Interpret the results.	15 Marks	L3	CO5
		Or			
20.	a.	A software firm signs a fixed-price contract to develop a custom application for ₹120 lakhs, estimated to be completed in 12 weeks, developing 10% of the project per week. After 8 weeks, only 60% of the project has been completed and the cost incurred is ₹85 lakhs. Determine CV, SV, CPI, SPI, EPCC, ACC, and EPCT, and explain the findings.	15 Marks	L3	CO5

21	a.	Crash the given network using the details given in table and find the optimum cost and least project duration. Consider indirect cost as Rs. 1000 per day.	20 Marks	L3	CO4

Activity	Predecessor(s)	Duration (days)		Cost (Rs.)	
		Normal	Crash	Normal	Crash
A	-	6	4	5000	6800
B	A	10	7	4000	7750
C	A	12	8	5000	8000
D	B	8	4	7000	8400
E	C	6	3	5000	6950
F	D, E	4	2	7000	7500

		Or			
22	a.	A software company has a project with the following activities, costs, and durations:	20 Marks	L3	CO4

Activity	Normal Duration (days)	Crash Duration (days)	Normal Cost (₹)	Crash Cost (₹)	Predecessor
A	4	2	40000	60000	–
B	6	4	60000	90000	A
C	5	3	50000	80000	A
D	8	6	80000	120000	B, C
E	4	2	30000	50000	D

Find the optimum cost of the project after crashing. Consider indirect cost as Rs. 5000 per day.