12 JAN 2022

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022
Fifth Semester
Civil Engineering
20CEEL504 - CONSTRUCTION PLANNING, SCHEDULING AND CONTROL
(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

		Marks, K-Level,CO
1.	Write short note on "Task".	2,K1,CO1
2.	Define activity precedence with an example.	2,K1,CO1
3.	Differentiate activity and node.	2,K2,CO2
4.	What are the uses of bar chart?	2,K1,CO2
5.	What is meant by "cost to date"?	2,K1,CO4
6.	What do you know about cash flow?	2,K2,CO4
7.	Define Quality Circle.	2,K1,CO5
8.	What are the causes of accidents?	2,K1,CO5
9.	State the advantages of Centralized DBMS over stand alone systems.	2,K1,CO6
10.	List any four software used for project Management.	2,K1,CO6

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11. a) Describe the methods of estimating the activity durations.   13,K2,CO1

OR

b) Explain codification approach with examples.   13,K2,CO1

12. a) Briefly discuss the three time estimate in PERT network analysis.   13,K2,CO2

OR

b) Determine the critical path and all the floats by constructing activity on   13,K3,CO2
branch network.

Activity	Duration	Predecessor
A	2	-
B	6	-
C	4	-
D	3	B
E	6	A
F	8	A

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   **11631**

1

G	3	B
H	7	C,D
I	2	C,D
J	5	E
K	4	F,G,H
L	3	F,G,H
M	13	I
N	7	K, J

13. a) Illustrate the profit estimation of project under "percentage completion method" and "completed contract method".   *13,K2,CO4*

OR

b) Explain in detail the financial accounting systems and cost accounting.   *13,K2,CO4*

14. a) Briefly explain the different methods of statistical quality control.   *13,K2,CO5*

OR

b) The Values sample mean X and the range R for 10 samples consisting of 5 items in each sample are given below: *13,K2,CO5*

Sample	1	2	3	4	5	6	7	8	9	10
X	43	49	37	44	45	37	51	46	43	47
R	5	6	5	7	7	4	8	6	4	6

Draw the mean and range charts and comment on the state of quality control. Assume suitable data if required.

15. a) Explain the different models of databases.   *13,K2,CO6*

OR

b) Discuss the various types of Project Information.   *13,K2,CO6*

PART - C (1 × 15 = 15 Marks)

16. a) The following table gives data about duration and costs of various activities of a project. The project overhead costs are Rs.2000 per week. Determine the optimum duration and cost associated with it.   *15,K3,C*

Activity	Duration (Weeks)		Cost (Rs.)	
	Normal	Crash	Normal	Crash
1-2	4	2	4000	12000
2-3	5	2	3000	7500
2-4	7	5	3600	6000
3-4	4	2	5000	10000

OR

b) Explain the resource smoothening & resource leveling with an example.   *15,K2,CO3*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   **11631**