

9. Sequence the activities logically based on cost control management. CO2 [K₂]
1. Strategic planning
 2. Evaluation
 3. Implementation and monitoring
 4. Design
- a) 1,2,3,4 b) 1,4,3,1
 c) 2,1,4,3 d) 4,3,2,1
10. _____ is a commitment to quality expressed in all parts of an organization and typically involves many elements. CO5 [K₂]
- a) Total Quality Control b) Quality Circles
 c) Safety d) Safety Circles

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11. Define work task. CO1 [K₁]
12. What are the advantages of using coding systems CO1 [K₁]
13. What is meant by resource constraint CO2 [K₂]
14. What are the uses of bar chart CO2 [K₂]
15. What are factors affecting quality in construction? CO3 [K₂]
16. What are the methods of Measuring Progress of work CO3 [K_L]
17. What is meant by cash flow control. CO4 [K₂]
18. List any 2 software used for project management system and estimation CO4 [K₂]
19. What is meant by integrated system design CO5 [K₂]
20. What are the advantages of Centralized Management System CO5 [K₂]

Answer any FIVE Questions:-
PART C (5 x 14 = 70 Marks)
(Answer not more than 300 words)

Q.No. 21 is Compulsory

21. The details of the network are given below, where, the duration are in days. Find the critical path, project completion time and all floats. CO1 [K₄]

Activity	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Predecessors	--	A	A	--	B	C,D	C,D	D	H	F	E,J	F	G,I	G,I	L,N
Duration	6	7	1	14	5	8	9	3	5	3	4	12	6	2	7

22. i) What are the drawbacks of bar charts and how those are eliminated in network analysis (8) CO2 [K₃]
 ii) Compare CPM and PERT (6)
23. Construct network and determine the optimum duration and optimum cost for a project with the relevant data is given below. Indirect cost is Rs.4000 per week. CO3 [K₃]

Activity	Normal		Crash		Cost slope Rs.Per week
	Time (weeks)	Cost (Rs)	Time (weeks)	Cost (Rs)	
1-2	3	12000	2	16000	4000
1-3	6	18000	3	24000	2000
2-4	2	20000	1	23000	3000
3-4	4	16000	2	21000	2500
4-5	5	30000	4	35000	5000

24. i) What are the functions of safety department (6) CO4 [K₄]
 ii) The Indian construction industry requires a comprehensive legislation for the safety and welfare of its workmen- comment on the statement (8)
25. Write a note on forecasting for activity cost control and methods of accounting. CO5 [K₄]
26. i) Explain the types of project Information (7) CO5 [K₄]
 ii) Explain Database management system. (7)
27. What is construction planning? Explain the basic concepts in the development of construction plans. CO1 [K₄]
