Register Number:……..

KUMARAGURU college of technology
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B.E DEGREE EXAMINATIONS: APRIL 2018

(Regulation 2014)

Eighth Semester

CIVIL ENGINEERING

U14CETE63**:** Construction Planning And Scheduling

COURSE OUTCOMES

CO1: Develop construction plans and estimate the resource requirements
CO2: Prepare bar chart for work schedule
CO3: Execute quality control and safety during execution
CO4: Judge the quality control through statistical modeling
CO5: Perform cost control monitoring

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. CO1 [K_3]

List I	List II
A. Superimpose activity	i. PERT
B. Longest path in the network	ii. Bar chart
C. It provides a simplified version of the work plan	iii. Dummy activity
D. It is probabilistic model	iv. Critical path

	A	B	C	D
a)	ii	i	iii	iv
b)	iii	iv	ii	i
c)	ii	iv	iii	i
d)	iii	i	ii	iv

2. The term _____ is used interchangeably in construction plans to refer specific defined items of work. CO1 [K_2]

a) Project plans b) Work tasks
c) Coding d) Activity

3. The advantages of centralized management systems are CO5 [K_4]

1. Reduced redundancy
2. Enforced data security
3. Alternative views
4. Flexibility

a) 1,3 b) 1,4

c) 1,2 d) 2,3

4. The difference between the maximum duration of time available for the completion and the actual duration required to carryout that activity is CO2 [K_3]

a) Float b) Total float

c) Free float d) Work task

5. Assertion (A): A project without a budget is like a missile without guidance system. CO3 [K_5]
Reason (R): Project budget specifies a standard for measuring effectiveness and efficiency with which activities are to be performed.

a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false d) A is false but R is true

6. Cost analysis aims to _____ CO3 [K_4]

a) Predict future costs b) Control estimates

c) Investment appraisal d) Cost accounting

7. The order of the functions of inspection are CO4 [K_5]

1.Material inspection

2.Process inspection

3.Equipment inspection

4.Finished job inspection

a) 2-3-4-1 b) 1-3-2-4

c) 3-4-2-1 d) 4-1-3-2

8. Statistical quality control standards are based on laws of _____ CO4 [K_6]

a) Sacred b) Probability

c) Assumptions d) Judgement

9. Assertion (A): The network model for database organization retains of information on branches and nodes. CO5 [K_6]

Reason (R): Not required a tree of structure.

a) Both A and R are Individually true and R is the correct explanation of A

b) Both A and R are Individually true but R is not the correct explanation of A

c) A is true but R is false

d) A is false but R is true

10. _____ contains the definitions of the information in the database. CO5 [K_3]

a) Network model

b) Relational model

c) Data dictionary

d) Database

PART B (10 x 2 = 20 Marks)

(Answer not more than 40 words)

11. Write any two objectives of planning. CO1 [K_3]
12. List out the significance of coding system. CO1 [K_1]
13. List out the factors affecting scheduling. CO2 [K_1]
14. What is meant by resource leveling? CO2 [K_4]
15. State the significance of project budget. CO3 [K_6]
16. Name the controls considered before start of the projects. CO3 [K_1]
17. List out the safety measures. CO4 [K_1]
18. State the method of sampling by attributes. CO4 [K_2]
19. List out the advantages and disadvantages of centralized database management system. CO5 [K_1]
20. Compare the organized information and unorganized information. CO5 [K_4]

Answer any FIVE Questions:-

PART C (5 x 14 = 70 Marks)

(Answer not more than 300 words)

Q.No. 21 is Compulsory

21. i) Prepare work breakdown and activity network for a tunneling project by defining the precedence relationship. (7) CO1 [K_6]

ii) Explain in detail about the estimation of activity durations and importance of learning curves. (7)

22. i) Explain the method of specifying the precedence relationship in activity on node and activity on branch network? (7) CO1 [K_2]

ii) Describe the method of estimation of the resources for work activities (7)

23. i) The duration of activities of a project are as follows. Draw the PERT network diagram. Identify various paths. Identify the critical path. Tabulate the computations. Evaluate the project time? (7) CO2 [K_6]

Activity	1-2	1-3	2-4	2-5	4-7	5-7	7-8	3-6	6-8
Duration in days	5	10	1	6	12	3	4	7	6

ii) Compare Precedence network analysis and critical path method. (7)

24. i) Describe the various methods of presenting project schedules. (7) CO2 [K_1]

ii) What are the techniques used for scheduling a project with uncertain duration? Explain any one of them in detail? (7)

25. Write a brief note on CO3 [K_3]

i) Cost control (7)

ii) Schedule control (7)

26. Summarize the following: CO4 [K_6]

i) Statistical quality control by sampling (7)

ii) Safety in construction (7)

27. Design an organization chart for the medium size construction company and explain it briefly. CO5 [K_5]

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