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Question Paper Code : X20267

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Sixth Semester

Civil Engineering

CE 6005 – CONSTRUCTION PLANNING AND SCHEDULING

(Regulations 2013)

(Common to PTCE 6005 – Construction Planning and Scheduling for B.E.
(Part-Time) – Fifth Semester – (Regulations – 2014))

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Write the basic concepts involved in development of construction plan.
2. How do you define the work tasks ?
3. Define critical path.
4. Define the terms : (a) Dummy activity (b) Float.
5. State different methods of accounting system.
6. What is cash flow ?
7. Explain how the quality control is important in a construction project.
8. Write about the total quality control.
9. Define and differentiate between data and information.
10. Name any two types of DBMS systems followed in construction industry.

PART – B

(5×13=65 Marks)

11. a) Explain the basic concepts in the development of construction planning.

(OR)

- b) Discuss in detail regarding the estimation of resources requirement for work activities.



12. a)	Activity :	A	B	C	D	E	F	G	H	I	J	K
	Duration :	10	12	8	12	6	5	8	8	10	6	12
	Predecessor:	–	–	A	A	B	B	E	C,G	C,G	F,H	D,I,J

- i) Draw the project network and identify the critical path.
- ii) Calculate all the activity times (EST, EFT, LST and LFT).
- iii) Calculate the total Float and free Float for all the activities.

(OR)

b) i) Define and differentiate between CPM and PERT. (7)

ii) Define crashing of activities, rules for crashing and draw the corresponding graphs and explain direct cost, indirect cost (Overhead cost), crashing cost and total cost. (6)

13. a) Describe the major causes of unfavorable direct cost variances. Explain two major objectives of budgeted cost analysis.

(OR)

b) i) How will you calculate the net profit using percentage of completion method and completed contract method ? (7)

ii) Write short notes on three different time estimates. (6)

14. a) Discuss briefly about the quality and safety precautions required in a construction industry.

(OR)

b) Describe the process of statistical quality control with sampling by attributes.

15. a) Explain how will you assess the information in an organized manner using computers.

(OR)

b) How will you interpret the database approach to contractor's account and explain it briefly ? Mention its advantages and disadvantages also.

PART – C

(1×15=15 Marks)

16. a) With flow chart and explain about how do you estimate the resources requirement for different stages of construction activities. (15)

(OR)

b) What is meant by critical path ? How it is helpful in project scheduling and give its advantages ? (15)
