

Total No. of Questions : 12]

SEAT No. :

P1689

[4859]-20

[Total No. of Pages : 3

B.E. (Civil)

CONSTRUCTION MANAGEMENT
(2008 Course) (Semester-II) (Elective-III)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6 from Section-I and Q. 7 or Q. 8, Q. 9 or Q. 10, Q. 11 or Q. 12 from Section-II.*
- 2) Answers to the two sections should be written in separate answer books.*
- 3) Neat diagrams must be drawn wherever necessary.*
- 4) Figures to the right side indicate full marks.*
- 5) Use of calculator is allowed.*
- 6) Assume suitable data if necessary.*

SECTION-I

- Q1)** a) Write various components of infrastructure sector and explain their Contribution towards the development of smart city. [9]
- b) What do you mean by PMC? Explain its role in case of construction of waste water treatment plant. [9]

OR

- Q2)** a) What is project overrun? Explain with the example how it is occurred and what is its effect? [9]
- b) Discuss with example construction project monitoring system and also highlight role of communication in monitoring process. [9]
- Q3)** a) Explain with example where LOB is useful. [5]
- b) What work breakdown structure? Draw WBS for construction of township project. [6]
- c) What is string diagram? Discuss their importance. [5]

OR

P.T.O.

- Q4)** a) Discuss objectives of work study with examples. [6]
b) Define scheduling and explain in detail different methods of scheduling. [6]
c) Explain Time and motion studies. [4]
- Q5)** a) List different labor laws applicable to construction industry and explain any two in detail. [8]
b) Define working capital and explain with reference to Smart City how fund/finance is raised for construction. [8]

OR

- Q6)** Write short note on: [16]
a) Project balance sheet.
b) Interstate Migrant Workers Act.
c) Need and importance of labor laws.
d) Profit and loss account.

SECTION-II

- Q7)** a) What is risk management in construction industry? Using an example of a highway project explain different risks likely to be occur during all different phases of the project. [12]
b) Discuss the crucial factors that affect the energy consumption in building. [6]

OR

- Q8)** a) Define value and value engineering. Write in detail steps involved in the application of value engineering. [10]
b) Discuss the role of insurance in construction risk management. [8]

- Q9) a)** Discuss the role of vendor management in materials management process. [8]
- b) How performance appraisal and job evaluation is done in construction industry with example of site engineer? [8]

OR

- Q10)a)** What are the advantages and disadvantages of early and late procurement of construction material? [6]
- b) Explain role of ERP in construction materials management. [4]
- c) Describe procedure suitable for employment in large scale construction Industry. [6]

- Q11)a)** What is AI? Discuss how it is useful in construction management with the example of RMC plant/Fleet Management System. [10]
- b) Explain with sketch elements of a biological neuron and how its analogous with artificial neuron? [6]

OR

- Q12)a)** Discuss the applications of ANN, Genetic algorithm and Fuzzy Logic in Construction Management. [12]
- b) Explain the components of Fuzzy system. [4]

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