

Total No. of Questions : 12]

SEAT No. :

P1519

[4759] - 20

[Total No. of Pages :3

B.E. (Civil)

CONSTRUCTION MANAGEMENT

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

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) Explain with example components of infrastructures which plays critical role in economic development of the country. **[12]**
- b) What do you mean by project overrun? Explain in detail. **[6]**

OR

- Q2)** a) What is mean by project management consultant? Explain his role from appointment upto completion with one particular example in construction sector. **[12]**
- b) How construction projects are monitored and their reporting is done?**[6]**

- Q3)** a) Define scheduling. What are uses and advantages of scheduling? Explain LOB technique. **[8]**
- b) Explain time & motion studies with applications in construction management. **[8]**

OR

- Q4)** a) Explain work breakdown structure. Prepare WBS for the construction of bridge across river. **[8]**
- b) Define work study. Explain flow process chart with example. **[8]**

P.T.O.

- Q5) a)** Explain need and importance of labour laws in construction industry. **[4]**
- b)** Explain the following terms: **[12]**
- i) Project balance sheet.
 - ii) Profit and loss account.
 - iii) Working capital.

OR

- Q6)** Write short Note on: **[16]**
- i) Project cash flow projection.
 - ii) Interstate Migrant Workers Act.
 - iii) Workman's Compensation Act 1923.
 - iv) Capital investment.

SECTION - II

- Q7) a)** Explain in detail different types of risks. **[10]**
- b)** Write note on: **[8]**
- i) Value engineering applications in construction industry.
 - ii) Role of insurance in risk management.

OR

- Q8) a)** Explain the different phases of a value engineering Job Plan. **[10]**
- b)** Explain with example how mathematical models are useful in risk management. **[8]**
- Q9) a)** Write down procedure of training supervisors and executives in a big project. **[8]**
- b)** Define EOQ? Derive its expression. **[8]**

OR

- Q10)a)** What is role of Material management in construction sector. **[8]**
- b)** What is performance appraisal and job Evaluation? Explain steps in job evaluation. **[8]**

Q11)a) What is ANN explain? Write down applications of artificial intelligence in construction management. **[8]**

b) What is an expert system? Write down the applications of expert system in construction. **[8]**

OR

Q12) Write short note on: **[16]**

- i) Fuzzy logic.
- ii) Genetic algorithm.
- iii) Biological neuron.
- iv) Applications of Neural networks in Construction Engineering.

