

Total No. of Questions : 8]

SEAT No. :

**PC1691**

[Total No. of Pages : 2

[6353]-7

**T.E. (Civil Engineering)**

**CONSTRUCTION MANAGEMENT**

**(2019 Pattern) (Semester - I) (Elective - I) (301005 c)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 Q.7 or Q.8.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Explain the importance of labour laws in construction sector. [6]  
b) Write note on Child Labour Act. [6]  
c) What is liability? Explain with suitable example. [6]

OR

- Q2)** a) Explain in detail profit loss accounts statement. [6]  
b) Explain Building and other construction work Act. [6]  
c) Write a short note on 'Need of Working Capital'. [6]

- Q3)** a) What are the steps involved in mitigation of risk. [6]  
b) Short note on sensitivity analysis and break-even analysis. [6]  
c) Write a short note on value management. [5]

OR

- Q4)** a) Write note on break even analysis. [6]  
b) Explain importance of value analysis and decision tree analysis in construction sector. [6]  
c) Write note on simulation analysis. [5]

*P.T.O.*

- Q5)** a) What is performance appraisal State importance of it. [6]  
b) What is supply chain management and state its importance in construction sector. [6]  
c) The Zen scientific Equipment Company estimates its carrying cost at 15% and its ordering cost at Rs. 9 per order. The estimated annual requirement is 48,000 units at a price of Rs. 04 per unit. [6]

Find out:

- i) What is the most economical number of units to order?  
ii) How many orders should be placed in a year?

OR

- Q6)** a) Explain in detail role of ERP in material management. [6]  
b) Write a short note on importance of HRM in construction industry. [6]  
c) A Mauli Brick supply company places an annual order of 48,000 units at a price of Rs. 20 per unit. Its carrying cost is 15% and the order cost is Rs. 12 per order. [6]

Find out:

- i) What is the most economical order quantity?  
ii) How many orders need to be placed in year?

- Q7)** a) Explain in details importance of Artificial Intelligence in Real Estate RERA Projects. [6]  
b) Explain list of various application using Python Programming and ANN, in Civil Engineering. [6]  
c) What are the application of fuzzy logic in construction industry. [5]

OR

- Q8)** a) Discuss in detail importance of Python Programming and genetic algorithm tool use in construction industry. [6]  
b) Explain in details characteristic of Artificial Neural Network (ANN). [6]  
c) What do you mean by fuzzy logic. [5]

