

[5254]-11

B.E. (Civil)

TQM & MIS IN CIVIL ENGINEERING

(2008 Pattern) (Elective - II)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer any three questions from section - I and any three questions from section - II.
- 2) Solve Q1 or Q2, Q3 or Q4, Q5 or Q6 from Section - I and Q7 or Q8, Q9 or Q10, Q11 or Q 12 from Section - II.
- 3) Answers to the two sections should be written in separate books.
- 4) Neat diagrams must be drawn wherever necessary.
- 5) Figures to the right indicate full marks.
- 6) Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 7) Assume suitable data, if necessary.

SECTION - I

- Q1)** a) State any three definitions of “Quality” with examples from construction sector. [6]
- b) State six reasons for poor quality in construction and its remedial measures. [12]

OR

- Q2)** a) In the era of fierce global competition in the construction industry, TQM approach is the only solution for successful business growth. Explain the validity of this statement with examples. [10]
- b) Explain short term and long term objectives of TQM in construction with practical examples. [8]
- Q3)** a) Differentiate between “Process Based Approach” and “Product Based Approach” with a proper example. [8]
- b) Prepare a checklist for avoiding honeycombing in concrete and for getting a very good finish. [8]

P.T.O.

OR

Q4) Explain eight ISO : 9001 principles with practical examples from construction sector. **[16]**

- Q5) a)** What is Benchmarking. Define internal and competitive Benchmarking. State four advantages of Benchmarking. **[2 + 2 + 4]**
- b)** What is Supply Chain Management (SCM)? State its advantages and limitations. **[2 + 6]**

OR

Q6) Explain in brief (any four) : **[16]**

- a) Defects in construction.
- b) Six sigma as a tool in TQM
- c) Kaizen in TQM.
- d) Customer satisfaction.
- e) Conformities and non conformance.

SECTION - II

- Q7) a)** Define “MIS” and explain with examples how a MIS will benefit construction organizations in effective management of construction projects. **[2 + 6]**
- b)** Explain MIS structure consisting of Internet, Intranet, Extranet for managing e-business operations with help of a flow chart. **[10]**

OR

- Q8) a)** Discuss data and Information inputs needed to prepare a MIS for a Road Construction Firm. **[8]**
- b)** What are Decision Support System? Explain its advantages with an example from construction firm. **[10]**

Q9) Define “System”. Explain Various Subsystems of MIS with practical example from construction organizations. **[16]**

OR

Q10) Explain in detail.

[8 + 8]

- a) ERP software applications in construction.
- b) MIS in the strategic planning.

Q11)a) Explain the role of MIS in Tendering and Bidding Process.

[6]

- b) Explain integration of Hardware, Software, data communication and processing, information gathering and processing with examples from construction field.

[10]

OR

Q12) Discuss various limitations of presently existing MIS softwares used in construction Industry and suggest recommendations to overcome it. **[16]**

