

Total No. of Questions : 12]

SEAT No. :

[Total No. of Pages : 3

P1512

[4759]-11

B.E. (Civil)

**TQM AND MIS IN CIVIL ENGINEERING
(2008 Course) (Semester-I) (Elective-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) *Figures to the right indicate full marks.*
- 4) *Use of logarithmic tables, slide rule, mollier charts, electronic pocket calculator and steam tables is allowed.*
- 5) *Assume suitable data, if necessary.*
- 6) *Neat diagrams must be drawn wherever necessary.*

SECTION-I

- Q1)** a) Give the various definitions of 'Quality' as stated by various Quality Gurus. **[4]**
- b) Explain with an example from construction sector, the statement "TQM is Organization quality plus Process quality plus people quality". **[6]**
- c) Explain with examples how philosophy of TQM can be implemented to improve the quality of construction in Indian context. **[8]**

OR

- Q2)** a) What are the various pillars of TQM? **[8]**
- b) Explain how they are helpful in improving the quality in any mega construction project. **[10]**
- Q3)** a) Prepare a checklist for M30 concrete at site. **[8]**
- b) Differentiate between: **[8]**
- i) QC & QA ii) TQC & TQM

OR

P.T.O.

- Q4)** a) Explain any four principles of ISO 9001:2000 with examples from Construction sector. [8]
- b) Explain P.D.C.A cycle with an example. [4]
- c) Explain how 'Quality Circle' functions in any organization. [4]

Q5) Following defects are observed in a newly constructed flat:

- i) Top corner of the wall is leaking.
- ii) Water is not flushing properly from bathroom.
- a) As a Quality Manager suggest preventive and remedial measures for the above defects. [8]
- b) Determine Cost of Poor quality for each of the above defects. [8]
- (Assume suitable data).

OR

Q6) Explain Any Four in brief: [16]

- a) DMAIC Methodology in Six Sigma.
- b) Application of PRRT software in TQM.
- c) Importance of 'Kaizen' in TQM.
- d) Supply Chain Management in TQM.
- e) Benchmarking in TQM.

SECTION-II

- Q7)** a) Define MIS. [2]
- b) Explain with a flow diagram the various components of an MIS developed for a mega residential project. [8]
- c) State various advantages of MIS in a contractor's organization. [8]

OR

Q8) a) What is Decision Support System? What are the various parameters of DSS? [8]

b) Explain the steps involved in the process of making a decision from inception to completion of a construction project. [10]

Q9) a) What is Strategic Management? [4]

b) Explain the importance of Strategic Management in MIS. [4]

c) Explain the three stages of strategic management with an example from construction sector. [8]

OR

Q10)a) Explain the importance of ERP in construction Sector. [6]

b) Explain with a flow chart an ERP designed for an organization working in road sector. [10]

Q11)a) Explain how MIS will help in planning, tendering, organizing and monitoring of a construction project. [8]

b) Explain integration of software, hardware, data and information processing with examples from construction sector. [8]

OR

Q12) Explain in brief (Any Four): [16]

- a) Data & Information.
- b) Types of Reports generated in MIS.
- c) Information based support system.
- d) Subsystems of an MIS.
- e) Tactical & Operational Decisions.

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