

Total No. of Questions : 10]

SEAT No. :

P3025

[Total No. of Pages : 2

[5354]-511

B.E. (Civil)

TQM & MIS IN CIVIL ENGINEERING
(2012 Pattern) (Elective - II) (Semester - I)

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, Q.9 or Q.10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume Suitable data if necessary.*

Q1) a) "Quality increases Profit". Comment on this sentence by giving suitable example. **[4]**

b) Explain DMADV cycle in detail. **[6]**

OR

Q2) a) Define data and information. What is the data and information required for construction of a tunnel? **[6]**

b) What is meant by Defects"? Explain by giving suitable example in construction. **[4]**

Q3) a) What are the benefits of applying TQM on construction site? **[5]**

b) State the definition of Six Sigma. Explain each sigma level. **[5]**

OR

Q4) a) What is MIS? How is it useful for construction industry? **[6]**

b) What are the sources of information? **[4]**

Q5) a) What are the disadvantages of ISO? **[4]**

b) Differentiate between internal and external failure cost by giving suitable example. **[8]**

c) Prepare checklist of formwork activity on site. **[6]**

P.T.O.

OR

- Q6)** a) What are the advantages of having checklist on construction sites? [5]
b) Differentiate between Quality Control and Quality Assurance principles as applied for RMC plant. [8]
c) Write short note on ISO 9001. [5]
- Q7)** a) Explain 1-10-100 rule as applied for Cost of Quality. [8]
b) How does Supply Chain Management help to improve Quality of a product? [8]

OR

- Q8)** a) Explain the steps to be followed in 'Benchmarking Process'. [8]
b) Explain in detail Kaizen' system in TQM. [8]
- Q9)** a) Explain in detail, how the smart phones are used for monitoring and controlling sites. [8]
b) What is meant by Enterprise Resource Planning system? What are its application areas in construction field? [8]

OR

- Q10)** a) How the latest technologies have helped in documentations of construction details? Explain with suitable examples. [8]
b) What are the various modules of ERP that are commonly used by construction sector? [8]

