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[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.7or 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.

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]**

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