

Total No. of Questions : 10]

SEAT No. :

**P3522**

**[4959]-1011**

[Total No. of Pages : 3

**B.E.(Civil)**

**C-TQM & MIS IN CIVIL ENGINEERING**

**(2012Course) (Elcective -II)(Semester-I)**

*Time :2½Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2,Q3or Q4, Q5 or Q6 , Q 7 or Q8, Q 9 or Q10.*
- 2) *Figures to the right indicate full marks.*

**Q1) a)** Explain PDCA cycle and its usefulness in Quality plan implementation with the help of practical examples **[2+4]**

b) Differentiate between the contribution of Juran and Crosby. **[4]**

OR

**Q2) a)** What are quality objectives? How are they set? What is the basic purpose of setting these objectives? **[2+2+1]**

b) Highlight 5 important functions to be performed by a quality manager.**[5]**

**Q3) a)** Discuss the advantages of implementing TQM in the Indian construction sector. **[5]**

b) Explain “Backlogs” as a quality defect elaborating on the “reasons” and the “remedies”. **[5]**

OR

**Q4) a)** Explain 5 important principles of TQM with examples. **[5]**

b) Elaborate on how the normal distribution and the six sigma technique are linked. Identify the actual levels for each sigma. **[5]**

**Q5) a)** Discuss and detail out the historical evolution from Quality → Quality Control → Quality Assurance → Total Quality Control → Total Quality Management with examples. Clearly explain each term and its importance. **[5+5]**

**P.T.O.**

- b) Elaborate with examples;-
- i) Leadership for quality attainment [2]
  - ii) Empowerment for human resources [2]
  - iii) Win- Win supplies, customer,relationship [2]
  - iv) Process based approach [2]

OR

**Q6)** Benchmark for quality aspects with respect to the providing and casting of M25 controlled concrete at site using a weigh batcher. Consider 9 important parameters for benchmarking. Identify. [18]

- a) minimum acceptable level and
- b) desirable quality level.(you are allowed to make provisions for tolerable allowances in each level)

**Q7)** a) What is an MIS? What parameters you will consider in preparing an MIS for a contractors organisation so as to monitor the quality of construction on a road project? Detail out. [2+10]

- b) Explain concepts of :-
- i) Hidden costs of Quality [2]
  - ii) Intangible benefits of Quality [2]
- (Use examples)

OR

- Q8)** a) Explain with applications
- i) Quality control charts [4]
  - ii) SCM [4]
  - iii) Kaizen [2]
  - iv) Zero defects [2]
- b) Explain what details get accounted while calculating the external failure costs? [4]

**Q9)** Detail out with examples the different modern devices and softwares used for measuring, documenting, reporting and correcting quality related data. **[16]**

OR

**Q10)** Write short answers to:-

- a) Loss of business on account of quality problems **[4]**
- b) Customer satisfaction and delight. **[4]**
- c) NC Report **[4]**
- d) ERP modules **[4]**

