

Total No. of Questions : 4]

SEAT No. :

**PA-10164**

[Total No. of Pages : 1

**[60101]-34**

**B.E. (Civil Engineering) (Insem)**

**TQM AND MIS**

**(2019 Pattern) (Semester - VIII) (401014 A) (Elective - VI)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary and clearly state.*
- 5) *Use of cell phone is prohibited in the examination hall.*
- 6) *Use of electronic pocket calculator is allowed.*

**Q1) a)** Explain seven principles of Quality Management System. **[8]**

b) Explain the Management Principles in QA. **[7]**

OR

**Q2) a)** Explain the PLAN-DO-CHECK-ACT (PDCA) CYCLE. **[8]**

b) Explain the Role of Civil Engineer in Total Quality Management. **[7]**

**Q3) a)** Explain the different variations that are used in the Six Sigma process. **[8]**

b) Explain the data is needed for a run chart. **[7]**

OR

**Q4) a)** Explain the IMPLEMENTING LEAN SIX SIGMA in Construction Industry. **[8]**

b) What are some of the common defects in construction project. **[7]**

