

Roll No.

Total No. of Pages : 02

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B.Tech. (Ind. Engg. & Mgt.) (Spl. in TQM) (PT) (Sem.-7)

SIX SIGMA

Subject Code : IEM-701

M.Code : 71695

Time : 3 Hrs.

Max. Marks : 40

INSTRUCTIONS TO CANDIDATES :

1. Attempt All EIGHT questions from SECTION-A carrying TWO marks each.
2. Attempt any SIX questions out of EIGHT from SECTION-B carrying FOUR marks each.

SECTION-A

1. Answer briefly :

- a. What do you understand by six sigma? How are six sigma quality levels different from conventional quality control norms applicable in Indian Industry?
- b. Show DMAIC improvement model used in six sigma implementation with a neat sketch.
- c. How do organizations determine critical parameters and opportunities for the defect to occur?
- d. Describe the procedure for conducting root cause analysis for detecting defects.
- e. How do organizations evolve parameters depicting statistical evidence of improvement in process parameters?
- f. How results of changes and improvements can be verified?
- g. What is DFSS Certification? How is it different from DMAIC methodology?
- h. How six sigma initiatives can become self-sustaining?

SECTION-B

2. What do you understand by six sigma as metric? Discuss six themes of six sigma.
3. How do organizations develop problem statement and project charter? Also explain the role of team selection and guidelines for adopting implementation plan.
4. Discuss the procedure for calculating calculate baseline sigma levels for processes and establish capability indices for the processes.
5. What is the importance of finalizing the project charter for creating plan for improvement in analysis phase of six sigma implementation?
6. Discuss the steps involved in arriving at selecting a particular improvement solution for addressing a specific problem.
7. Describe the steps taken by organization in control phase of six sigma implementation process.
8. TRIZ: A Perfect Tool for Process Innovation by Tackling Engineering contradictions. Explain.
9. Describe best practices in six sigma.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.