

M.TECH. DEGREE EXAMINATIONS: NOV/DEC 2010

Third Semester

APPAREL TECHNOLOGY AND MANAGEMENT

FTY610: Lean Manufacture

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. Differentiate between TQM and Lean concept.
2. How does over processing and waiting time are categorized as waste in lean manufacture.
3. Bring out the significance of CTQ in developing a product and process to satisfy customer requirements.
4. List out the non-value adding activities in apparel manufacturing process and bring out the scope of eliminating those activities.
5. Give the application of Binomial & Poisson distribution in apparel industry defect analysis.
6. What is DMAIC?
7. What is TAKT time?
8. How does KAIZEN take into human contribution for continuous process improvement?
9. Bring out the path of achieving a quality level of 3.4 defects / million parts in Six Sigma application.
10. Highlight the application of CAD / CAM systems in apparel industry in the context of Six Sigma.

PART – B (5 X 16 = 80 Marks)

11. a) Explain factors contributing to Cost of Poor Quality in the context of domestic retail brand.

(OR)

- b) Explain with appropriate examples various wastes in a manufacturing system and their contribution for cost overrun and process delay.

12. a) Identify and explain CTQ for production activities from spreading to sewing department.

(OR)

- b) Explain in detail the role of value stream mapping in improving process efficiency.

13. a) Explain the various sampling techniques used in apparel industry and explain the procedure for determining sample size.

(OR)

- b) Discuss in detail the implementation and analysis of zero defect programme in lean manufacture.

14. a) Discuss the application of Kanban card for production planning and control in apparel industry with examples.

(OR)

- b) Explain how WIP inventory can be reduced using EOQ and Batch production models.

15. a) Enumerate the methodology of product development using Six Sigma concept.

(OR)

- b) Explain how return on investment can be justified in case of technology upgradation in fabric spreading and cutting processes.
