| Sea | at No.: | Enrolment No | _ | |
|--|---|--|----------|--|
| | GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER IV (NEW) – • EXAMINATION – WINTER 2016 | | | |
| Su | bject | Code: 2745003 Date: 26/10/202 | 16 | |
| Su | bject | Name: Lean Manufacturing System and Implementation | | |
| Time:02:30 pm to 05:00 pm Total Ma Instructions: | | . | rks: 70 | |
| Ins | 1. 2. | Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | | |
| Q.1 | (a) (b) | What is Lean Manufacturing? Explain its Principles in detail Write a note on Conventional Manufacturing versus Lean Manufacturing. | 07 07 | |
| Q.2 | (a) (b) | What are the essentials tools of lean manufacturing? Write a short note on "Keys to successful implementation of JIT". OR | 07 07 | |
| | (b) | Explain the meaning of total quality management. | 07 | |
| Q.3 | (a) | Explain the role of TPM in lean manufacturing system. Enlist the pillars of TPM system and clearly describe any two of them. | 07 | |
| | (b) | What are the different types of cells and layout in cellular manufacturing system | 07 | |
| | | OR | | |
| Q.3 | (a) (b) | Explain 5s concept and its steps. Write the short notes on-(i) cellular manufacturing (ii) Setup time reduction | 07 07 | |
| Q.4 | (a) (b) | What is Value Stream Mapping(VSM)? Explain with it's principles Define and explain following with respect to Lean Manufacturing. (i) Kaizen (ii) Heijunka (iii) Kanban (iv) Poke Yoke OR | 07 07 | |
| Q.4 | (a) (b) | Clearly mention similarities and differences between TQM and TPM. Discuss the five primary elements of Lean manufacturing. | 07 07 | |

Describe the natural progression of changes that may seen in a manufacturing

System as it is gradually converted to a lean system. Justify the answer by

Explain the understanding various lean implementation frameworks

What are the process of Lean manufacturing concept evolution

Briefly explain in Enablers and Barriers of Lean implementation

Q.5

Q.5

(a)

means any case study.

07

07

07

07