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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (Ind. Engg. & Mgt.) (Spl. in TQM) (Sem.–6)**

**LEAN MANAGEMENT**

**Subject Code : IEM-602**

**Paper ID : [70998]**

**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 Just in time management system? How does JIT system work? Enumerate its advantages.
- b) Distinguish between value added and non-value added activities. Can non value added activities be totally eliminated from workplace?
- c) What do you understand by 5S? Explain the elements of 5S.
- d) Define Kaizen. How do organizations implement kaizen at workplace?
- e) Define work cells. Why benefits cellular manufacturing offer to manufacturing organizations?
- f) Enumerate the salient characteristics of mini kaizen. Explain the sequence of events for mini kaizen.
- g) What do you understand by autonomous maintenance? How do organizations promote autonomous maintenance initiatives at workplace?
- h) Define autonomation. How do companies apply autonomation at workplace?

## SECTION-B

2. Briefly describe the historical perspective and origin of Toyota Production System. How did TPS promote inculcating innovation in organizations?
3. Explain and differentiate between 3M's of waste elimination.
4. How does TPS lead to problem solving and take problem solving as a potential improvement opportunity?
5. Differentiate between pull and push systems. How do push and pull kanbans work?
6. Differentiate between value stream mapping and process mapping. Give applications of both processes.
7. What do you understand by poka yoke? How does poka yoke philosophy lead to achievement of zero defects at workplace?
8. Giving a neat sketch, show various pillars of Total productive maintenance. Briefly describe various elements of TPM process.
9. Discuss the application of value stream mapping for improving quality at workplace.