



MANIPAL INSTITUTE OF TECHNOLOGY

A Constituent Institute of Manipal University, Manipal

VII SEMESTER B.TECH (MECHANICAL/IP ENGG.) END SEMESTER EXAMINATIONS, NOVEMBER 2017

SUBJECT: LEAN MANUFACTURING [MME 4007]

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.

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| 1A. | Explain the primary purpose of lean manufacturing. | 4 |
| 1B. | Explain the characteristics of a lean value stream. | 4 |
| 1C. | What is value stream mapping? Explain. | 2 |
| 2A. | Explain benefits of kanban scheduling. | 4 |
| 2B. | Explain the steps to implement kanban. | 4 |
| 2C. | What is replenishment cycle? Explain in brief. | 2 |
| 3A. | Write a note on adopting increased and decreased demand. | 4 |
| 3B. | Explain the components of production lead time. | 4 |
| 3C. | Compare the Kanban system with MRP. | 2 |
| 4A. | Explain the four major setup concepts. | 4 |
| 4B. | Explain elements of standard operations. | 4 |
| 4C. | Explain Yo-i-don System. | 2 |
| 5A. | Write a note on supermarket pull system. | 3 |
| 5B. | Write a note on supplier kanbans. | 3 |
| 5C. | Write a note on steps for conveyance improvement. | 2 |
| 5D. | Write a note on organization structure for promoting setup time reduction. | 2 |