MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
(A constituent unit of MAHE, Manipal)

VII SEMESTER B.TECH. (MECHANICAL/IP ENGINEERING)
END SEMESTER EXAMINATIONS, DEC 2019

SUBJECT: LEAN MANUFACTURING [MME 4007] (PE VI)
REVISED CREDIT SYSTEM
(__/__/2019)

Time: 3 Hours   MAX. MARKS: 50

Instructions to Candidates:

❖ Answer **all** questions.
❖ Missing data may be suitably assumed.

1A.	What is Seiton and Seiso in 5s concept? Explain.	**4**
1B.	With a neat sketch explain how the problem is solved in a manufacturing unit with the help of visible management system.	**3**
1C.	Explain cycle time, value added time and lead time.	**3**
2A.	With neat sketch explain any eight value stream mapping information icons.	**4**
2B.	List the points to be considered to design a Kanban.	**4**
2C.	Why Kanban scheduling is also called as demand scheduling? Explain.	**2**
3A.	A company produces knife in a process with 7% scrap and the downstream scrap of the processes that use the knife are 3%. To meet daily production of 750 for this knife, how many parts would need to be run?	**3**
3B.	Write a short note on how collected data should be analyzed in Kanban.	**3**
3C.	Explain internal lead time and supplier lead time.	**4**
4A.	What is economic order quantity? Explain with a numerical example.	**3**

4B. Explain the framework for reducing lead time with a flow chart. **3**

4C. Differentiate product flow layout and job shop layout. **4**

5A. Explain four setup concepts used to reduce setup time. **4**

5B. Explain how standard operations are determined in standardization of operations. **4**

5C. What are internal and external setup time. **2**

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