

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: EEE/MECH/PROD/CIVIL/BIOTECH**

**SEMESTER: VII
SESSION : MO/2018**

SUBJECT : PE7005 COMPETITIVE MANUFACTURING STRATEGIES

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

- Q1 (a) What are the major functions of world trade organization? [2]
 (b) Discuss the impact of globalization on upliftment of Indian industries. [3]
- Q2 (a) How do resources and capabilities of a firm influence its distinctive competencies? [2]
 (b) What are the different strategic decision areas to be coordinated to finalize the manufacturing strategy of a firm? [3]
- Q3 (a) How do variety creation and variety implementation decisions determine a firm's responsiveness to demand uncertainty? [2]
 (b) "Design for manufacturing is not a ready to use method. Rather, it is an approach that emphasises on the inclusion of process information into the design process." - Discuss on the above comment. [3]
- Q4 (a) What are the critical factors for the success of the buying firm's strategy towards vendors? [2]
 (b) How awards and certification schemes are utilized by leading firms to enhance the competitiveness among their vendors? [3]
- Q5 (a) "Waste kills the business, customer trust, employee morale, market share, profits, everything companies work for." How just-in-time manufacturing philosophy can be tactfully used to take safeguard against above cited problems? [2]
 (b) A toy manufacturing company uses a Kanban system. Its requirements are 30,000 toys per month. The policy variable is set at safety factor (α) = 20 %. The container capacity is fixed at 100 items and the production lead time is 0.3 days with 25 working days a month. [3]
 i) Determine the number of production Kanban required daily.
 ii) What happens if the lead time is increased to 0.5 day because of labor shortages and failure of machine?

- Q6 (a) [2]

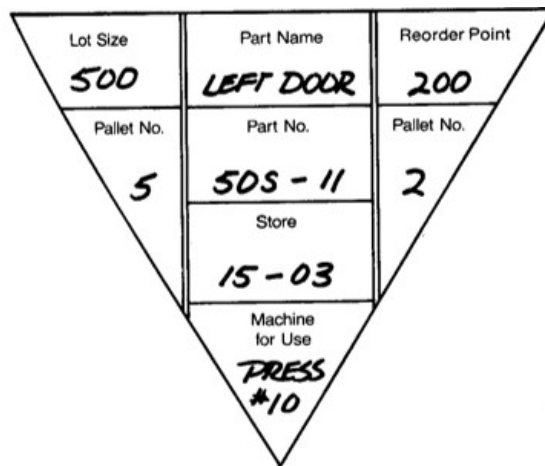


Fig. 1

- What information are provided in the 'triangle' Kanban card given in Fig. 1
- (b) What are the basic requirements for implementing agile manufacturing strategies in a manufacturing industry? [3]