

## Assignment 8

### Manufacturing Systems Technology

1. Which of the following is true of Just in time (JIT) production systems?
  - (i) Marketing is scheduled just in time to generate customer orders.
  - (ii) The flow of goods is controlled by a push approach.
  - (iii) **Raw materials are received just in time to go into production.**
  - (iv) JIT approaches can be contrasted with conventional approaches which advocate a pull approach.
  
2. The just in time (JIT) production facet of the lean thinking model would likely have the most profound effects on the operations of companies that maintain:
  - (i) Raw materials and finished goods inventories.
  - (ii) Work in process and finished goods inventories.
  - (iii) Raw materials and work in process inventories.
  - (iv) **Raw materials, work in process, and finished goods inventories.**
  
3. Since the early 1980's companies have gone through several waves of improvement programs. All of the following represent improvement programs except:
  - (i) **Control Theory (CT).**
  - (ii) Process Reengineering.
  - (iii) Total Quality Management (TQM).
  - (iv) Just-in-time (JIT).
  
4. Which of the following represent manual systems designed to support continuous flow manufacturing?
  - (i) **JIT's kanban system**
  - (ii) TOC's OPT system.
  - (iii) An ABC system.
  - (iv) I & ii
  - (v) ii & iii
  
5. Kaisen is:
  - (i) a method of stock control.
  - (ii) a modern way of operating a production line.
  - (iii) **a word meaning 'continuous improvement.'**

(iv) another word for Quality Circles.

6. Rearranging a factory from a traditional plant layout to a cellular plant layout tends to

(i) increase the need for inventory buffers.

(ii) increase the number of machine operators needed.

(iii) **increase the proportion of direct product costs to total product costs.**

(iv) All of the above.

(v) None of the above.

7. Lean production primarily delivers cost and \_\_\_\_\_ to an operation?

(i) Flexibility

(ii) Speed

(iii) **Quality**

(iv) Dependability

8. Pull Replenishment is a fundamental concept in lean manufacturing that is based on one core idea:

(i) The use of inventory should be anticipated and scheduled for replenishment in advance of its use. In this way the overall objective of “zero inventory” can be achieved.

(ii) **Inventory should only be replenished when it has been used.**

(iii) Inventory is unnecessary and should be eliminated immediately at any cost.

(iv) Inventory should be eliminated and additional labor added so as to have the flexibility to respond to changes in customer needs.

9. Is forecasting unnecessary in a flow or pull environment?

(i) Yes, every important company activity is driven by customer orders.

(ii) **No, many longer term business management processes still need forecasts of demand.**

(iii) Unnecessary in flow, but necessary to support pull.

(iv) Necessary in flow, but unnecessary to support pull.

10. The three areas covered by the Kanban Control Record include:

(i) Values for takt time, EPE Interval, pitch quantity.

(ii) Standard, pacemaker and FIFO controls.

(iii) Supermarkets, processes and loop names.

(iv) **Basic default values for new records, transaction controls, sequence enforcement controls.**

**11.** Kanban Process Maintenance has two basic parts:

**(i) Process data maintenance and Process Item Detail maintenance.**

(ii) Process data maintenance and Kanban Master Maintenance.

(iii) Process data maintenance and Basic Process Calculations.

(iv) Basic Process Calculations and Process Item Operation Rollup.

**12.** The Kanban Dispatch List includes all of the following data except:

(i) Authorized date and time

(ii) Due date and time

(iii) Sequence number for major/minor setup (mfg\_seq)

**(iv) Current days of supply**