



INDIAN INSTITUTE OF MATERIALS MANAGEMENT  
Post Graduate Diploma in Materials Management  
PAPER No. 16

Dec 2018

Business Strategies and World Class Practices

Date :28.12.2018

Time : 2.00 p.m to 5.00 pm

Max. Marks :100

Duration : 3 Hrs.

Instructions:

1. The question paper is in three parts
2. Part A is compulsory. Each sub question carries one mark.
3. In Part B answer any 3 questions out of 5. Each question carries 16 marks
4. Part C is a case study with sub questions and it is compulsory.

Total marks-32

Total marks-48

Total marks-20

PART A

(32 marks)

(Compulsory. Each sub-question carries 1 mark)

Q.1. Expand the following:

1. CIM
2. CRP
3. PWP
4. FMS
5. QSFV
6. CAPP
7. MRP II
8. RDBMS

Q.2. Fill in the blanks. (Do not reproduce the sentence)

- a) A \_\_\_\_\_ corporation is a firm that seeks to combine the benefits of scale efficiencies with the benefits of local responsiveness.
- b) \_\_\_\_\_ flexibility is the ability to introduce new products and modify existing products.
- c) The principle of FMS is that \_\_\_\_\_ is embedded into the software that controls the system and its components.
- d) \_\_\_\_\_ defect is a philosophy that believes in defect prevention rather than finding and fixing defects.
- e) Six sigma fundamentally focuses on reduction in \_\_\_\_\_.
- f) \_\_\_\_\_ is something that doesn't add value
- g) In pull system the \_\_\_\_\_ facilitates the movement of materials.
- h) \_\_\_\_\_ charts are used to detect trends in variation.

Q.3. State True or False (Do not reproduce the sentence)

- a) During industrial age the primary factor for generating wealth was land.
- b) The process of reducing labour in production is known as lean production.
- c) Reengineering is a method of improving business performance by measuring, comparing and improving.
- d) Technique used to determine the quantity and timing requirement of dependent demand items is called BOM.
- e) Mistake proofing approach is called zero defect quality control.
- f) A bar code consists of a series of parallel adjacent bars and spaces.
- g) Quality trilogy consists of quality planning, quality control and quality assurance.
- h) Malcom Baldrige national quality award is a quality assurance model.

**Q.4. Match A and B**

**A**

- i. Economic evolution
- ii. Flexibility
- iii. Attributes
- iv. Seven wastes
- v. Bottleneck
- vi. U shaped layout
- vii. Autonomation
- viii. External set up time

**B**

- a) Order qualifier
- b) Constraints
- c) Alvin Tofler
- d) SMED
- e) Ability to adapt quickly
- f) Jidoka
- g) Group Technology
- h) Shingo

**PART B**

**48 marks**

**(Attempt any 3. Each question carries 16 marks)**

- Q.5.** a) Explain an independent demand inventory system?  
b) Explain Maskell model of world class manufacturing.
- Q.6.** a) What are lean production tools?  
b) What is process capability? How is this measured?
- Q.7.** a) What are Philip Crosby's contribution to quality?  
b) Explain the process of Management by Objectives?
- Q.8.** a) Explain natural resource management.  
b) Explain E business with examples.
- Q.9.** Write short notes on any four (4 x4= 16 marks)
- a) Root cause analysis
  - b) POP System
  - c) Deming cycle
  - d) Rapid prototyping
  - e) World class customers

## PART C

20 marks

### Q. 10. Case study - Compulsory

At the Square D Corporation's Lexington, Kentucky, plant, about 800 workers have been reorganized into work team of from 20 to 30 workers to assemble electrical control panels, switches, transformers. Before the creation of work teams employees would spend all day working on a single part over and over again, never seeing the end product. Now the plant has a new layout with each team operating a factory – within-a factory. Each team does all the work on entire product from start to finish and works like it is operating its own business. The company used to spend more on painting buildings than on training, but now it spends about 4% of payroll cost on training. Managers have also empowered the workers by giving them the authority to make decision on the shop floor about all phases of production. Employees are trained to operate like a team, and it shows. They work together to fix machines when they break. They work together to make decisions about how to solve production problems when they occur. They are also trained to improve product quality, and it is working. Employees meet at the beginning of each shift to examine the quality performance. Each employee charts his or her accuracy every 30 minutes. The number of defects have been reduced by 70%, and the time it takes to get out customers orders has been reduced from 6 weeks to 3 days..

#### Questions:

1. Working in teams improves quality. Substantiate your answer using the case study.
2. How to go about people empowerment? How it benefits the organization?
3. What is the importance of training?
4. Explain the concept of factory – within – a factory.

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