



Paper 18.E

Total Quality Management

Date 16.12.2017

Max. Marks 100

Time: 2.00 to 5.00 p.m

Duration 3 hours

Instructions

1. The question paper is in three parts A, B & C.
2. Part A is compulsory. Each question carries one mark. Total : 32 Marks
3. In Part B, answer 3 questions out of 5. Each question carries 16 marks. Total : 48 Marks
4. Part C is a case study with sub questions and it is compulsory. It carries 20 marks.
5. Use of calculator is allowed wherever necessary.
6. Graph sheets can be used wherever necessary.

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**PART A**

32 marks

( compulsory. Each question carry 1 mark)

**Q 1. Expand the Following**

**8 Marks**

- a. CFT
- b. SQC
- c. CII
- d. NQA
- e. CIL
- f. CED
- g. FFA
- h. PCIT

**Q 2. Match the following**

**8 Marks**

**A**

**B**

- a. Operating Characteristics curve
- b. LTPD
- c. Random sampling
- d. Vendor performance
- e. Lander and Associates
- f. Deming
- g. Reputation for quality
- h. Uniform auditing

- a. Cluster in a group
- b. Examinations and evaluation
- c. Quality of items supplied
- d. Upper limit or defective
- e. planning for quality
- f. Motorola
- g. Coco-Cola
- h. acceptance fraction defectives

**Q 3. State True or False**

**8 Marks**

- a. Quality is not a critical factor in customer right
- b. Old quality is about product, new quality is about services
- c. Kano breaks down quality in to 4 catagories
- d. In matrix data analysis factors are intertwined
- e. Value analysis aims at reducing the cost of Purchased parts and improve their performance.
- f. Undesirable variations in quality characteristics can arise during productions
- g. Dr. Edwards Deming contributed significantly in promoting quality concepts in American industry
- h. Customer focus and satisfaction as one of the 7 pillars of Baldrige quality frame work carries 7.5% weightage

**Q 4. Fill in the blanks**

- a. Employee investment involves changing organizational \_\_\_\_\_
- b. Continuous improvement refer to incremental and \_\_\_\_\_
- c. McKinney's 7s model includes 3hard S's and 4 \_\_\_\_\_ S's
- d. Total quality is seen by employees as just another cost\_\_\_\_\_ programme
- e. Scatter diagrams are graphical computes of \_\_\_\_\_ analysis
- f. Crosby's \_\_\_\_\_ steps in Quality Improvement plan
- g. Very good after-sales-services attracts customer \_\_\_\_\_
- h. \_\_\_\_\_ was regarded as Quality guru

**PART B**

**48 marks**

**( Attempt any three. Each Question carry 16 marks )**

**Q5.** Explain the various characteristics of a creative problem solving process

**Q6.** Outline various quality costs in service organization

**Q7.** What are the processes of inspection?

**Q8.** Why some quality improvement efforts fail?

**Q9.** What are the methods of evaluating vendors?

## **Part C**

**(compulsory)**

**Q. 10 Answer case study :**

**20 marks**

Philips India Ltd., a MNC is from Dutch with a major plant in India. The company is having a sound corporate brand image and various electronic product – mix. The company has got a sound consumer base for its quality through it is expensive than the competitors. It operates through forward integration with its own authorized dealers network.

In 1990 labour unrest started in Calcutta plant seeking for hike in salary and other facilities. The labour unrest led to closing of the plant at any time. In 1955, the management implemented TQM and total employees Involvement (TEI) involving empowering and motivating. The management implemented ISO 9000 benchmarking. The labour union also participated in the benchmarking process by way of micro and macro level teams formation and shouldered responsibility and accountability.

By 1995 the Philips Calcutta plant became a model factory for its major competitors to envy on its operations and turn around. Various quality standards adopted in the factory to achieve the European Quality Award. It also obtained EMS (Environmental Management Systems)/ 4001.

The company has benefited from five management principles for its revival

1. Mission Statement
2. Revolve around value
3. Trustworthiness
4. team effort
5. Continuous motivation

The continuous improvement through structured Kaizen was adopted for day to day quality improvement. Cross functional teams were formed to know the areas of improvement at micro level

With the internal customer satisfaction through cross functional team, external customer demand and expectation in the market were fulfilled

Questions on Case study

- a. Outline the various labour problems of Philips India Ltd.
- b. What strategies had led to revive the plant and get European Quality Award?
- c. What are the other areas the company could have brought about TQM?
- d. How would you apply the TQM policy of the company to other electronic companies of India.

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