



Post Graduate Diploma in Materials Management
Paper 18.E
Total Quality Management

Date 17.06.2017
Time: 2.00 to 5.00 p.m

Max. Marks 100
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.

PART A

32 marks

(compulsory. Each question carry 1 mark)

Q.1. Fill in the blanks. (Do not reproduce the statement)

- a) The key to an effective TQM programme is its focus on _____.
- b) Service quality includes both _____ services and facilities services.
- c) Pareto analysis helps in _____ of areas for improvement.
- d) _____ quality is the quality that the customer does not appreciate.
- e) _____ is the length of time that a product is used before its fails.
- f) A _____ is defined as a system of external conditions that produces dissatisfaction.
- g) A _____ diagram graphically illustrates the relationship between variables.
- h) Design of experiments is an _____ quality control method.

Q.2. State True or False. (Do not reproduce the statement)

- a) TQM requires a cultural change.
- b) Features are essential attributes of a product.
- c) Planning for quality must always start with the product attributes.
- d) Employee empowerment can be achieved through job enrichment.
- e) Quality is a means to an end.
- f) Small q approach to quality goes beyond the product.
- g) House quality gives top management strategic direction.
- h) A company can achieve sustainable advantage through benchmarking.

Q.3. Match A and B

A

- a) Check sheet
- b) Warranty claim
- c) Statistical control
- d) Self audit
- e) Quality trilogy
- f) Exciting quality
- g) DFM
- h) Theory Z

B

- 1) chance causes
- 2) compliance
- 3) data collection
- 4) External failure
- 5) Surprises customer
- 6) Juran
- 7) Participative
- 8) Modular design

Q.4. Expand the following

- a) CDEAC
- b) PDPC
- c) QFD
- d) COQ
- e) ZQC
- f) OCC
- g) USL
- h) GPNQA

PART B

48 marks

(Attempt any three. Each Question carry 16 marks)

- Q.5. a) Explain the axioms of TQM culture.
b) Explain Design for Manufacture.
- Q.6. a) Explain Crosby's absolutes of quality and six Cs.
b) What are the dimensions of product quality?
- Q.7. a) Explain the 7 QC tools.
b) What are Deming's contribution to TQM?
- Q.8. a) Explain the classifications of Quality costs with examples.
b) Explain the steps in audit execution.
- Q.9. Write short notes on any four
- a) Outsourcing
 - b) Contributions of Ishikawa
 - c) Affinity diagram
 - d) Benchmarking
 - e) Sampling plans
 - f) Deming prize

Part C

(compulsory)

Q. 10 Study the case carefully and answer the questions :

20 marks

Total quality principles and tools have been woven into every fabric of how we do business at Procter & Gamble. In my view, two of the most powerful aspects of total quality within P&G have been process improvement and measurement systems.

Process measurement taught us that all parts of logistics are interrelated processes, not stand-alone functions. In response to this P&G completely reorganized the company, creating new organization – Product Supply. We broke down the traditional organizational hierarchy of manufacturing, engineering, distribution, and purchases. This has had a tremendous positive effect on the way we interact with each other and on how we view our work.

We also introduced measurement system to virtually every process within Product Supply. For example, all over the world, P&G employees are measuring customer satisfaction through tracking of “perfect orders.” Total order management, as we know it, monitors our logistics performance from the time an order is generated until it is billed to the customer.

The quality thinking is building a high degree of reliability throughout our entire delivery system. The measures are included in our carrier performance standards and shared openly with our carriers. This helps them gain a clear understanding of our strategies and what is expected from them. The top carriers soon develop their own measures and present this to us on a regular basis.

We have learned that data are the most powerful tools we have. Without data, you are just another person with an opinion.

Questions:

- 1) How the principles of TQM are deployed in P&G?
- 2) How system thinking was introduced in P&G?
- 3) Evaluate how tracking of perfect orders improves organizational performance?
- 4) In your opinion how important is data to an organization.
