



University of Kelaniya - Sri Lanka

Centre for Distance and Continuing Education

Faculty of Commerce & Management Studies

Bachelor of Business Management (General) Degree Third Examination (External) – 2014/ 2015

July - 2019

BMGT E 3035 – Total Quality Management

No of questions – Five (05)

Time: 03 hours

Graph papers will be provided

Instructions

- I. Answer all the questions.
- II. Question paper is consisted by two parts
Part I - 20 questions (multiple choice)
Part II - 4 questions
- III. Use “**Supplementary Multiple-Choice Answer Sheet**” to answer part I
- IV. Handover "suplimentary multiple choice answer sheet" along with answer script.

Part I

- (1) A fundamental attribute of TQM is
- a) Drawing control charts and Ishikawa Diagram
 - b) Having team meetings
 - c) Top management's direct involvement
 - d) All of the above

- (2) A control chart displays
- a) Whether workers are motivated
 - b) Top management takes interest in quality
 - c) Process capacity
 - d) Process variability
- (3) ISO 9000 determines
- a) If vendors are performing well
 - b) Process capacity
 - c) The company practices its written procedures
 - d) The kind of control chart to be used
- (4) Benchmarking determines
- a) Customer satisfaction
 - b) Competitors Process capability
 - c) level of employees motivation
 - d) How company is doing relative to others
- (5) Cost of quality is really
- a) Cost of inspection
 - b) Cost of production and sales
 - c) A way to prioritize actions
 - d) Cost of high-quality products
- (6) The Baldrige Award is
- a) A ISO 9000 requirement
 - b) An indication of SPC being used
 - c) Indication of zero defects
 - d) Indication that TQM programs

- (7) Six Sigma implies
- a) A statistical method
 - b) A trouble-shooting method
 - c) 3 defects per million in output
 - d) 6 defects per million in output
- (8) QFD is the way to
- a) Ammending defects
 - b) Handle customer complains
 - c) Conduct quality circle meetings
 - d) Develop product specs
- (9) Which is the type of quality Management system of improving quality through small incremental improvement.
- a) Just-in-time
 - b) Six Sigma
 - c) ISO 9000
 - d) Kaizen
- (10) Just-In-Time system
- a) Transport times are balanced
 - b) There is unequal production at different places
 - c) There is no delay
 - d) Both (A) and (B)
- (11) The following is (are) the prerequisite(s) for JIT.
- a) Multi skilled workers
 - b) Vendor should produce defect free
 - c) Worker should be empowered his own decision
 - d) All of the above

- (12) Which one is NOT a benefit of Shine?
- a) Less production downtime
 - b) Happier employees
 - c) Inventory reduction
 - d) Customer satisfaction
- (13) The concept of total quality control, i.e. that quality must be attended to at all stages of the industrial cycle and throughout the organisation, is the creation of which of the following pioneers?
- a) Maslow
 - b) Herzberg
 - c) Armand Feigenbaum
 - d) W Edwards Deming
- (14) The so-called 'quality gurus' of total quality management (TQM) do NOT include which one of the following?
- a) W Edwards Deming
 - b) Bill Cosby
 - c) Kaoru Ishikawa
 - d) Joseph M Juran
- (15) TQM expands on earlier approaches to quality management. Which of the following is ordered correctly from earlier to later ideas?
- a) Inspection, Quality Control, Quality Assurance, Total Quality Management
 - b) Quality Control, Inspection, Quality Assurance, Total Quality Management
 - c) Quality Assurance, Quality Control, Inspection, Total Quality Management
 - d) Quality Assurance, Inspection, Quality Control, Total Quality Management

(16) Match the following

- | | |
|----------------------------------|---------------------------|
| A. Dr. Deming believes | 1. Histogram |
| B. Ishikawa development | 2. Common causes |
| C. Due to type of variation | 3. Cause & effect diagram |
| D. Crosby's objective of quality | 4. To prevent defect |

The correct order is

- a) A-4, B-3, C-1, D-2
- b) A-4, B-3, C-2, D-1
- c) A-3, B-4, C-2, D-1
- d) A-4, B-2, C-3, D-1

(17) Match the following

- | | |
|---|------------------------------|
| A. How TQM helps in reducing cost | 1. By reducing external sale |
| B. Calibration activity carried in company is | 2. Prevention cost |
| C. Quality planning is | 3. Appraisal cost |
| D. Vender assessment is | 4. Appraisal cost |

The correct order is

- a) A-4, B-1, C-2, D-3
- b) A-1, B-4, C-3, D-2
- c) A-1, B-4, C-2, D-3
- d) A-1, B-2, C-4, D-3

(18) Focusing on the customer involves:

- a) product design
- b) customer expectations
- c) service provided
- d) all of the choices are correct

(19) The process mapping is a _____ diagram.

- a) Data flow
- b) Circular
- c) Work flow
- d) Audit

(20) According to Deming, Quality problems are

- a) Due to method
- b) Due to management
- c) Due to machine
- d) Due to material

(Each question carry single (1) mark)

(Total 20 marks)

Part II

Question No. 2

- a) Discuss factors to be considered for JIT implementation. (10 marks)
- b) How does Generic benchmarking differ from Competitive benchmarking? (10 marks)
- (Total 20 marks)**

Question No. 3

a)

Internal Memo

From: Managing Director

To: Quality Manager

Date: 22nd April 2019

Re: Quality Cost

During the 2019 budget proposal meeting, the company advised to minimize the customer returns, warranty expenses and quality cost. You have minimized the customer returns and warranty, however, you can see that quality costs have shown no significant change. I look forward to receive your comments on this on or before 1st of May 2019.

Quality Cost

Expenditure	4th Qtr. 2018	1st Qtr. 2019
Inspection Equipment	350,000.00	550,000.00
Salary - Quality Assurance staff	425,000.00	725,000.00
Training cost quality assurance	300,000.00	500,000.00
Scraps	165,000.00	375,000.00
Rework	275,000.00	550,000.00
Warranty	725,000.00	35,000.00
Quality Planning	70,000.00	90,000.00
Customer Surveys	125,000.00	153,000.00
Returns	550,000.00	25,000.00
	2,985,000.00	3,003,000.00

Suppose, you are the quality manager of the company and suggest solutions for the issues

(10 marks)

b) The table below shows the recorded thicknesses of aluminum bars. Plot a frequency histogram of the bars thicknesses, and comment on the result.

.3968 .3921 .3943 .4000 .3935 .4019 .3991 .3969 .3946 .3965 .3917 .4008 .4036 .4004 .3967
 .3955 .3959 .3937 .3961 .4037 .3847 .3907 .3986 .3956 .3875 .3950 .3981 .1971 .4009 .3985
 .4005 .4127 .3918 .3900 .4029 .4031 .4047 .3901 .3976 .4016 .3975 .3932 .4065 .4006 .4011
 .4027 .3909 .3949 .4089 .3997 .4058 .3911 .3993 .3978 .3972 .3919 .3996 .3995 .4014 .3999

(10 marks)

(Total 20 marks)

Question No. 4

Analysis bellow table and come with your suggestions

Table 1: Frequency distribution and total cost of winter jacket batches scrapped/reworked

Reason for scraps/ rework	Frequency	Cost per batch (Rs.)	Total cost (Rs.)
1	23	650	14,950
2	32	625	20,000
3	4	40,000	160,000
4	11	5,000	55,000
5	3	40,000	120,000
6	2	2,500	5,000
7	2	4,800	9,600
8	1	10,000	10,000
9	1	950	950
10	1	4,500	4,500

Source : Annual Production Report, 2018

(Total 20 marks)

Question No. 5

Suppose you are the new Manager for Quality Assurance in a leading garment exporting company in Biyagama, Your CEO has recently Instructed you to submit a report on enabling, establishing and conducting innovative Quality Circle (QC) program in your firm.

You are required to submit a comprehensive Action plan. (Relevant data if necessary can be assumed.)

(Total 20 marks)