



University of Kelaniya – Sri Lanka

External Examinations Branch

Faculty of Commerce & Management Studies

Bachelor of Business Management (General) Degree Third Examination

(External) – 2010

January 2012

BMGT E 3035 – Total Quality Management

No. of questions : 07

Time: 03 Hours

Answer any five (05) questions

- (01) a) "Quality is excellence". Do you agree with this statement?
Explain with definitions. (05 marks)
- b) What are the dimensions of manufactured products and services? Describe. (06 marks)
- c) What are the various levels of quality? (04 marks)
- d) Describe the activities of quality management. (05 marks)
(Total 20 marks)
- (02) a) What are the principles of Total Quality Management (TQM) ? Explain. (04 marks)
- b) Explain the rationale for continuous improvement. (04 marks)
- c) "To be successful in implementing TQM, an organization must concentrate on some key elements".
Do you agree with this statement? Explain. (12 marks)
(Total 20 marks)
- (03) Identify the founders of the following quality concepts and explain their total contribution.
- a) PDCA model (04 marks)
- b) Fitness for use (04 marks)
- c) Cause and effect diagram (04 marks)
- d) 7 S Framework (04 marks)
- e) Leadership (Managing By Walking Around - MBWA) (04 marks)

(04) Explain the following tools which are used for continuous improvement with practical examples.

- a) Pareto analysis (04 marks)
- b) Fish born diagram (04 marks)
- c) Process flow charting (04 marks)
- d) Check sheets (04 marks)
- e) Histograms. (04 marks)

(Total 20 marks)

(05) a) Explain the role of top and middle management, when implementing Total Quality Management. (TQM)

(08 marks)

b) Discuss the importance of the National Policy for Quality, with referring to Sri Lanka's quality award scheme.

(12 marks)

(Total 20 marks)

(06) a) What are control charts? Emphasis the importance of them.

(05 marks)

b) Tast Fish company (Pvt) Ltd manufactures canned fish. Net weight of a canne is 425g and drained weight is 280g. Whole manufacturing process of the company is controlled by a quality system. Any four (04) cans are randomly checked in each half an hour. Using these data,

- i) Calculate the Average and Range for control limits.
- ii) Find this \bar{X} and R control chart values.
- iii) Plot the \bar{X} and R control chart and evaluate the process performance.

Table (01)

Sample	Grams			
	X ₁	X ₂	X ₃	X ₄
1	423	425	423	424
2	422	423	424	425
3	425	424	425	425
4	426	425	426	423
5	427	426	427	424
6	425	427	425	423
7	425	423	425	425
8	423	424	425	424

9	424	425	423	425
10	425	425	424	423
11	424	424	424	425
12	425	423	425	424
13	426	424	425	425
14	427	425	424	425
15	426	425	425	425

Table 02 - Extra information.

	A ₂	D ₃	D ₄
2	1.88	0	3.27
3	1.02	0	2.57
4	0.73	0	2.28
5	0.58	0	2.11

(15 marks)

(Total 20 marks)

(07) Write the short notes on any five (05) topics of the following.

- a) Quality costs.
- b) KAIZAN
- c) Quality circle
- d) Demin's 14 points
- e) Standardization.
- f) Just in Time (JIT)

(05 marks for each)

(Total 20 marks)