



University of Kelaniya – Sri Lanka

External Examinations Branch

Faculty of Commerce and Management

Bachelor of Business Management (General) Degree Third Examination – (External) 2009 October 2010

BMGT E 3035 – Total Quality Management

No. of Questions: 07

Time: 03 hours

Answer any five (05) questions including question number one. Graphs papers will be provided.

- (01) (a) What is "quality"? Define. (04 marks)
- (b) How dose the consumer's perspective of quality differ from the producer's. (04 marks)
- (c) What is "Total Quality Management"? Define. (04 marks)
- (d) Explain the building blocks of TQM. (04 marks)
- (e) Explain the benefits of quality control for an organization. (04 marks)
- (Total 20 marks)
- (02) Identify two important quality gurus in the following mentioned each ears and discuss their contribution.
- (a) Early 1950 's American's who took the massage of quality to Japan. (07 marks)
- (b) Late 1950 's Japanese who developed new concepts in response to the Americans. (07 marks)
- (c) 1970' s - 1980' s western gurus who followed the Japanese industrial success. (06 marks)
- (Total 20 marks)
- (03) (a) "A Company is beneficial with a quality system based on prevention ratter than appraisal". Do you agree with this statement ? Explain. (10 marks)

- (b) Illustrate the each of the types of cost of quality with diagrams and examples.
(10 marks)
(Total 20 marks)
- (04) (a) Explain the differences among Maintenance, Innovation and KAIZEN .
(10 marks)
- (b) Describe following tools which are used for continues improvement with appropriate diagrams.
- (i) Process mapping
 - (ii) Pareto analysis
 - (ii) Check sheet
 - (iv) Bar charts
 - (v) Histogram
- (15 marks)
(Total 20 marks)
- (05) (a) Discuss the importance of the national policy for quality.
(06 marks)
- (b) Distinguish the differences between TQM and certification of ISO 9000.
(08 marks)
- (c) What are the Sri Lankan National Quality Award criteria's? Explain.
(06 marks)
(Total 20 marks)
- (06) A Machine of the Pure Milk Food Company packs milk powder. A milk packet weight is 400g. The company inspects the filling process and make sure that the milk packets weights are in control. The quality control department of the company sampled 5 packets every one hour for these consecutive working days. The sample observations are as follows.

Table I

Sample	Packet weight (grams)				
	X1	X2	X3	X4	X5
1	400	402	401	400	399
2	401	398	402	401	400
3	399	399	403	402	401
4	398	399	397	403	401
5	399	598	399	399	403
6	399	400	398	400	402
7	400	400	400	400	401
8	400	401	401	378	400
9	400	402	400	399	400
10	400	403	400	399	401
11	399	403	401	399	398
12	399	401	398	400	399
13	398	402	399	401	399
14	401	400	399	402	400

Table II

Extra information :-

A	A2	D3	D4
2	1.88	0	3.27
3	1.02	0	2.57
4	0.73	0	2.28
5	0.58	0	2.11

Calculate following things by using these data .

- (I) The Average and range for control limits.
- (II) X and R control chart value.
- (III) Plot the X and R control chart and evaluate the process performance.

(12 marks)

(b) Following table shows data which are relevant of P chart.

Sample	Number of items	Defectives
1	100	4
2	100	2
3	100	5
4	100	3
5	100	6
6	100	4
7	100	3
8	100	7
9	100	1
10	100	2

Using above data calculate,

- (I) Average of the sample proportions
- (II) Standard deviation
- (III) Control limits.

(8 marks)

(Total 20 marks)

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

- (a) PCDA Model
- (b) Dimensions of quality
- (c) 14 steps of quality improvement of Crosby
- (d) Five S (5S)
- (e) Quality council
- (f) Just in Time (JIT)
- (g) Benchmarking

(4 in each)

(Total 20 marks)