



UNIVERSITI KUALA LUMPUR
MALAYSIAN INSTITUTE OF MARINE ENGINEERING TECHNOLOGY

FINAL EXAMINATION
JANUARY 2017 SEMESTER

COURSE CODE : LGB20503

COURSE NAME : QUALITY MANAGEMENT

PROGRAMME NAME : BACHELOR OF ENGINEERING TECHNOLOGY (HONS)
(FOR MPU: PROGRAMME LEVEL) IN NAVAL ARCHITECTURE & SHIPBUILDING
BACHELOR OF ENGINEERING TECHNOLOGY (HONS)
IN MARINE ELECTRICAL AND ELECTRONIC
BACHELOR OF MARITIME OPERATIONS (HONS)

DATE : 07/07/2017 FRI

TIME : 3.00 PM - 6.00 PM

DURATION : 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. Please read CAREFULLY the instructions given in the question paper.
2. This question paper has information printed on both sides.
3. This question paper consists of TWO (2) sections; Section A and Section B. Answer ALL questions in Section A and THREE (3) questions from Section B.
4. Please write your answers on the answer booklet provided.
5. Write your answers only in BLACK or BLUE ink.
6. Answer all questions in English.

THERE ARE 4 PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.
Please use the answer booklet provided.

Question 1

- (a) The definition of quality adopted by the ISO 9000 is "The degree to which a set of inherent characteristics fulfils requirements".

Define five (5) of the following eight principals of quality dimensions: Performance, Features, Reliability, Conformance, Durability, Serviceability, Aesthetics and Perceived Quality.

(10 marks)

- (b) The use of statistical methods for production monitoring and parts inspection became known as statistical quality control (SQC), wherein statistical data are collected, analyzed, and interpreted to solve problems. The primary concern of individuals involved in quality is the monitoring and control of variation in the product being produced or service being provided. Statistical Process Control (SPC) has evolved after SQC.

Outline the quality principle based on Statistical Process Control (SPC).

(10 marks)

Question 2

- (a) As a customer, everyone has been dismayed time and time again when flights are delayed, radioactive contamination spreads, medical treatment is not consistent with best practices, a child's toy fails to function, and a new piece of software is not as fast or user-friendly as anticipated.

Describe four (4) of the following five components of quality gaps: Understanding gap, Design gap, Process gap, Operations gap and Perception gap.

(8 marks)

- (b) The usual first step in planning for quality control is to map out the flow of the operating process. (Process Conformance: Does the process conform to its quality goals? The umpire answers this question by interpreting the observed difference between process actual performance and process goals. When current performance does differ from the quality goals, the question arises: What is the cause of this difference?)

Explain on Special and Common Causes of Variation.

(12 marks)

SECTION B (Total: 60 marks)**INSTRUCTION: Answer only THREE questions.****Please use the answer booklet provided.****Question 3**

Most quality improvement projects are chosen through the nomination and selection process. Project screening is to identify those nominations which promise the most benefits for the effort expended. The quality councils and/or the secretariats have found it useful to establish criteria to be used during the screening process.

- (a) **Outline** the project screening process.

(12 marks)

- (b) **State** the **four** (4) criteria for choosing the first project to be tackled by any of the project teams.

(8 marks)

Question 4

The quality manager follows one of two routes in conducting quality cost study: (1) unilaterally prepares a definition of the categories and collects data or (2) presents to upper management the limited data provided by the accountant, and recommends that a full study be made using the resources of Accounting, Quality, and other functions. The second approach is more likely to achieve acceptance of the results of the study.

- (a) **State two** (2) of the objectives of evaluation quality and cost.

(6 marks)

- (b) **Identify** the sequences or steps in conducting quality cost study that applies to most organizations.

(14 marks)

Question 5

- (a) Quality management principles” are a set of fundamental beliefs, norms, rules and values that are accepted as true and can be used as a basis for quality management. The seven principles are: **Customer focus, Leadership, Engagement of people, Process approach, Improvement, Evidence-based decision making, and Relationship management.**

Outline the ‘**Rational**’ of the important for the organization in applying any **four** (4) of the above seven quality management principles.

(12 marks)

- (b) Benchmarking is an important ingredient in strategic planning and operational improvement. To remain competitive, long-range strategies require organizations to adapt continuously to the changing marketplace.

Describe the overview of benchmarking.

(8 marks)

Question 6

- (a) Total Quality Management can be defined as ‘an organized scientific approach towards continuous improvement of quality involving everyone in the organization covering every function aimed towards total customer satisfaction.

Determine the **four** (4) goals of total quality management.

(12 marks)

- (b) From a business and technical perspective, project quality is usually judged on the numbers of criteria a project should meet and comply based on business and technical expectations and standards.

Describe ‘Project Quality Planning’ for a project implementation.

(8 marks)

END OF EXAMINATION PAPER