
UNIVERSITI SAINS MALAYSIA

First Semester Examination
Academic Session 2011/2012

January 2012

EBB 513/3 – Quality Management

Duration : 3 hours

Please ensure that this examination paper contains FIVE printed pages before you begin the examination.

This paper consists of SEVEN questions.

Instruction: Answer **FIVE** questions. If candidate answers more than five questions only the first five questions answered in the answer script would be examined.

The answers to all questions must start on a new page.

All questions must be answered in English.

1. Problem solving and decision making are fundamental to total quality management. On the one hand good decisions will decrease the number of problems that occur. On the other hand, the workplace will never be completely problem-free.

Explain about the importance of problem solving and decision making based on the following points:-

- (i) Learning to solve problems effectively, positively, and in ways that don't create additional problems
- (ii) Becoming better decision makers
- (iii) Learning to make decisions and handle problems in ways that promote quality

(100 marks)

2. Just in time (JIT) is the name given by the Toyota Production System by developed by Taiichi Ohno. JIT is sometimes referred to as Lean Production Manufacturing. The term Focused Factory is sometimes applied to JIT production cell. If you encounter a production system called Demand Flow, or Demand Flow Technology, it is JIT with new label. JIT manufacturing has become a management philosophy that seeks to eliminate all forms of waste in manufacturing processes and their support activities. This has to apply not only to the JIT manufacturer but also to its suppliers if the systems is to eliminate all possible waste. Those companies that have required their suppliers to do their warehousing clearly have not gotten the point. The supplier should not produced the material until the JIT manufacturer needs it. In that mode there is no warehousing and therefore no wasted resources for buildings, maintenance, people to care for the material spoilage, obsolescence, or other related problems. Explain in detail about the rational for JIT, relationship of JIT to TQM and Word-Class manufacturing, benefits of JIT, requirements of JIT and automation & JIT.

(100 marks)

3. As defined by the International Organization for Standardization (ISO): "TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society". TQM is the way of managing for the future, and is far wider in its application than just assuring product or service quality – it is a way of managing people and business processes to ensure complete customer satisfaction at every stage, internally and externally. TQM, combined with effective leadership, results in an organisation doing the right things right, first time.

The core of TQM is the customer-supplier interfaces, both externally and internally, and at each interface lie a number of processes. This core must be surrounded by commitment to quality, communication of the quality message, and recognition of the need to change the culture of the organisation to create total quality.

It is more convenience to express the above statement in a simple TQM Model. Discuss in detail about a possible TQM Model.

(100 marks)

4. Benchmarking is become an increasingly popular tool among companies trying to become more competitive, striving for world-class performance. Benchmarking was brought to our awareness through Robert C. Camp's 1989 landmark book. The vast majority of the companies are actively engaged in benchmarking. Benchmarking is a part of the total quality process, and anyone involved in total quality should have a solid understanding of this subject. Explain in detail about the benefits and pitfalls of benchmarking. Also explain how any enterprise could make rational decisions concern benchmarking, including whether or not to do it, and how to go about it.

(100 marks)

5. Strategic planning is the process whereby organizations develop their vision, mission, guiding principles, broad objectives and specific strategies for achieving the broad objectives.

Strategic planning is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy, including its capital and people.

Various business analysis techniques can be used in strategic planning, including

- (i) SWOT analysis
- (ii) PEST analysis
- (iii) STEER analysis
- (iv) STEEPLE

Discuss in detail any of these analysis technique to develop your company's strategic planning.

(100 marks)

6. Dr. Kaoru Ishikawa wrote that the use of statistical method as the seven indispensable tools that are being widely used by everyone: company presidents, company directors, middle management, foremen, and line workers. These tools are also used in a variety of departments, not only in the manufacturing department but also in the departments of planning, design, marketing, purchasing, and technology. Therefore, no matter where you fit into your organization today, you can use some or all of these tools to advantage, and they will serve you well for your future prospects. Their use will assure better decision making, better solutions to problems, and even improvement of productivity and products and services.

Explain about the most widely used total quality tools and their applications, and also provides some insights on the involvement of management and the cross-functional nature of the tools.

(100 marks)

7. If you ask the typical manager to describe his or her biggest problem in today's workplace, the response will probably include one or more of the following:

- We spend all our time in meetings trying to resolve problems
- We are constantly fighting problems, and that doesn't leave us to do our real jobs, such as planning, leading, and so forth
- As soon as we put out one fire, another pops up
- We've got more problems than we can handle, and it bogs us down

Based on the above statements or any other similar statements, problem solving and decision making are fundamental to total quality. On the other hand, good decisions will decrease the number of problems that occur. On the other hand, the workplace will never be completely problem-free.

Discuss in details about how to solve problems effectively, positively, and in ways that don't create additional problems. Also discuss about how you can become a better decision makers. Include also in your discussion about learning to make decisions and handle problems in ways that promote quality.

(100 marks)