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# UNIVERSITI SAINS MALAYSIA

First Semester Examination  
Academic Session 2008/2009

November 2008

## **EBB 513/3 – Quality Management**

Duration : 3 hours

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

This paper contains SIX questions.

**Instructions:** Answer **FIVE** questions. If a candidate answers more than five questions only the first five questions in the answer sheet will be graded.

Answer to any question must start on a new page.

All questions must be answered in English.

1. [a] Explain types of organizational structures. (40 marks)
- [b] What are the challenges of a leader? (40 marks)
- [c] Discuss the reasons why a firm would seek for ISO 9000 registration. (20 marks)
2. [a] Identify the three management processes that comprise Juran's Quality Trilogy. Explain at least two organizational activities that can be categorized under each process. (30 marks)
- [b] Explain what is meant by "six sigma quality". (30 marks)
- [c] There are numerous types of problem solving tools. By giving examples, explain how do these tools benefits an organization. (40 marks)
3. [a] Briefly explain the documentation hierarchy in a quality management system. (20 marks)
- [b] Explain the principles of Management. (40 marks)
- [c] There are a few strategic planning models being used in a organization. Compare any two of the models. (40 marks)

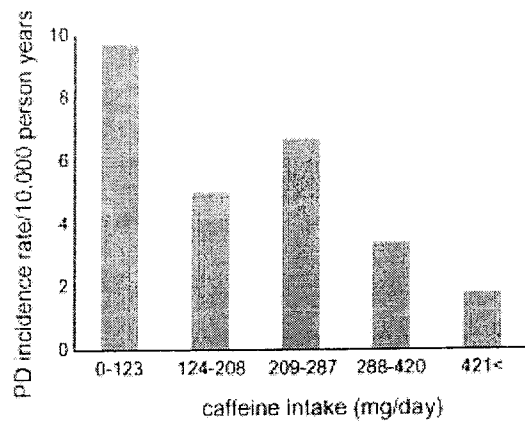
4. A group of students has been searching through all scientific articles about caffeine and Parkinson's disease for their biology project. They are wonder about a connection between caffeine and Parkinson's disease as shown in Figure 1.

(i) Based on the graph (Figure 1), what do you conclude about Parkinson's disease? What other information would you need to properly assess the data?

(50 marks)

(ii) Would caffeine be considered an effective treatment option for Parkinson's disease? Why or why not?

(50 marks)



**Figure 1**

5. A company manufactures organic foods started out as a very small company of about 10 people. About four years after its conception, it soon began growing at a very rapid pace. Although the management was good at maintaining its organic and food certifications, they were not very skilled and knowledgeable of the many safety regulations that governs manufacturing plants. It soon found its way into trouble when OSHA (Occupational Safety and Health Administration) inspectors showed up at its doors to perform a federal inspection.

Worker training and safety programs at the company food processing plant were found to be below industry standards during the inspection. Inspectors for OSHA identified more than 25 safety and health hazards at the plant during an inspection conducted during the last three months. The agency cited company for:

1. Violating requirements for turning off machinery during maintenance and providing safeguards so they cannot be restarted during maintenance.
2. Critical safety guards missing on moving machine parts.
3. Incomplete procedures for work performed in confined spaces including tanks.
4. Lack of training for forklift operators.
5. Posted safety rules not being enforced or obeyed.

Discuss:

- (a) What role can the company's human resource department play in making the workplace safer?
- (b) What might the company have done to prevent them from getting into trouble with OSHA?
- (c) What type of analysis might you perform to ensure that the safety training programs are adequate?
- (d) What type of training could you provide for the supervisors and management, besides safety, that would help them comply with OSHA requirements?

(100 marks)

6. [a] Is Six Sigma suitable for all industries? Explain your answer.  
(50 marks)
- [b] Suppose that you run a pizza business and deliver pizzas to offices in the neighborhood area. According to your contract with one of your major customers, everyday pizzas will be delivered fresh and hot, and will be delivered between 11.45 pm to 12.15 pm. Here the 11.45 pm to 12.15 pm delivery window will form as part of the 'requirement', while the window outside of 11.45 pm and 12.15 pm will be considered 'defect'. You agree to give your customer a 50% discount if the delivery falls on the 'defect' window. At the same time, you will pay bonus to your staff whenever the pizzas are delivered within the 'requirement'. How does six sigma used as a quality tool to explain this process?  
(50 marks)