

Cork Institute of Technology

Bachelor of Science in Food Science & Technology - Award

Bachelor of Science in Applied Biosciences & Biotechnology - Award

(SFSTE_7_Y3)(SBIBI_7_Y3)

Spring 2008

Quality Management Systems

(Time: 3 Hours)

Answer a total of **FIVE** questions.
Answer **TWO** questions from Section A
Answer **THREE** questions from Section B

Examiners: Dr. T. Beresford
Ms. A. Murphy
Ms. A. Ward

Section A

- Q1.** 'Statistical Process Control (SPC) can be defined as a simple effective approach to problem solving and process improvement.'
Discuss this statement under the following headings:
- (i) Process mapping (6 marks)
 - (ii) Process variability (7 marks)
 - (iii) SPC tools (7 marks)
- Q2.** Write short notes on **TWO** of the following:
- (i) Functional analysis
 - (ii) Teamwork for quality
 - (iii) Benchmarking
 - (iv) GMP requirements (20 marks)
- Q3. (a)** Write an overview of the traditional and modern economic models for quality of conformance.
Comment on the cost categories into which quality costs can be divided. (10 marks)
- (b)** Discuss ISO9001:2000 as an important Quality Management standard.
In your answer, describe the key benefits of implementing ISO standards to an organisation. (10 marks)

Section B

- Q4. (a)** The following is a list of specifications for a computer currently available in the marketplace. Describe in detail **three** of the following specifications:
- (i) Intel Core 2 Duo Processor (2.20GHz, 2MB L2 Cache, 800Mhz FSB)
 - (ii) 250GB SATA Hard Drive (7,200 rpm)
 - (iii) 16x DVD +/- RW Drive
 - (iv) 1024MB DDR2 SDRAM (667 MHz) (6 marks)
- (b) Discuss in detail the relationship between total revenue and elasticity of demand. (6 marks)
- (c) Discuss the functions of the World Trade Organisation in development free trade in the world market. (8 marks)
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- Q5. (a)** Discuss the functions of an operating system in a computer and outline the main classifications of operating systems available on modern computers. (7 marks)
- (b) Distinguish, using examples, between line and batch production processes. (6 marks)
- (c) Write a brief note on the functions of focus groups in the process of new product development. (7 marks)
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- Q6. (a)** Discuss the role of a laboratory information management system (LIMS) in a quality control laboratory of a modern food or pharmaceutical company. (8 marks)
- (b) Discuss, using examples, the importance of promotion as an element of the marketing mix for a food or pharmaceutical company. (6 marks)
- (c) Discuss the main factors that contribute to the failure of new products in the marketplace. (6 marks)
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- Q7. (a)** Describe briefly the main legal requirements involved in setting up a limited company in Ireland. (6 marks)
- (b) Discuss the main requirements for long term sources of finance in a business. List the main sources of long term finance for a business. (6 marks)
- (c) Write a brief note on **two** of the following in relation to consumer protection in the marketplace:
- (i) Sales and Goods and Supply of Services Act 1980
 - (ii) General Product Safety Directive 95/2001
 - (iii) 2007 Consumer Information Act. (8 marks)