

Cork Institute of Technology

Bachelor of Science (Honours) in Applied BioSciences – Award

December 2006

Quality Management Systems

(Time: 3 Hours)

Answer one question from each of Section A, B, C and D. Each question carries equal marks.

Use separate answer books for each section and mark the question attempted

Examiners :Mr. B. Walsh

Ms. A Ward

Mr. S. McCarthy

Mr. S. O'Connell

Dr. T. Beresford

Section A

Q1. Write concise notes on:

- (a) Root Cause Analysis (8 marks)
- (b) SNEAK Analysis (8 marks)
- (c) Hazard analysis in the HACCP system (9 marks)

Q2. Show how risk assessment can be used to:

- (a) Improve the production process at the early stages of development. (15 marks)
- (b) Improve standards for an ingredient or a product. (10 marks)

Section B

Q3. (a) Explain the basis of the following Capital Investment Appraisal techniques:

- (i) Payback Method
- (ii) Net Present Value (8 marks)

(b) The following cash flows (euros) have been estimated for a project:

Year	0	1	2	3	4	5
Euros	-2000	+400	+600	+700	+600	+500

Calculate the project NPV and state whether the project is acceptable assuming that the cost of capital is either:

(i) 10%

(ii) 20%

Discount Factors for 10% = 0.909 0.826 0.751 0.683 0.621

Discount Factors for 20% = 0.833 0.694 0.579 0.482 0.402 (8 marks)

(c) Create a structure for a Factory Profit and Loss Account with which you are familiar showing the key performance factors on the Y axis. (9 marks)

Q4. (a) A Board of Directors has appointed you as chief Executive Officer (CEO) of a newly established manufacturing company.

Sketch an organisational structure you would create at the next level of management and briefly detail your own responsibilities and the responsibilities you would delegate to each head of function you create. (7 marks)

(b) “ Adopting the “ process approach” is a management strategy for maximising a company’s potential profits”. Discuss this statement emphasising its influence on the control of costs. (8 marks)

(c) Write notes on how the teaching of the following recognised management gurus are supposed to impact on productivity:

(i) Frederick W Taylor

(ii) Elton Mayo

(iii) Abraham Maslow

(iv) Frederick Hertzberg

(v) Douglas McGregor

(10 marks)

Section C

Q5. Write notes on the following:

- (a) Quality Manual
- (b) Effective management leadership
- (c) International quality standards

(25 marks)

Q6. “ Quality characteristics can readily be classified into several useful categories of fitness for use.” Discuss this statement. (25 marks)

Section D

Q7. Write an essay on current quality improvement initiatives being implemented by Total Quality Management organisations. Comment on the use of these initiatives as managerial decision making tools in cost reduction programs. (25 marks)

Q8. Good Manufacturing Practice (GMP) is defined as “that part of Quality Assurance which ensures that products are consistently produced and controlled to the quality standards appropriate to their intended use”. Discuss this statement. (25 marks)