

**CORK INSTITUTE OF TECHNOLOGY**  
**INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

**Autumn Examinations 2011/2012**

<b>Module Title:      Quality Management Systems I (CA)</b>
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**Module Code:** BIOT6005

**School:** Science & Informatics

**Programme Title:** BSc in Applied Biosciences – Year 2  
BSc (Hons) in Nutrition & Health Science – Year 2  
BSc (Hons) in Pharmaceutical Biotechnology – Year 2  
BSc in Agriculture – Year 3  
BSc in Horticulture – Year 3

**Programme Code:** SBIOS\_7\_Y2  
SPHBI\_8\_Y2  
SNHSC\_8\_Y2  
BAGRI\_7\_Y3  
BHORT\_7\_Y3

**External Examiner(s):** Dr Anne Nelson, Dr Alison Gallagher, Dr J. Bird

**Internal Examiner(s):** Ms Anne Ward

**Instructions:**                    **Answer TWO questions from SECTION A and TWO questions from SECTION B only.**

**Duration:** 2 hours

**Sitting:** Autumn 2012

**Requirements for this examination:**

<p><b>Note to Candidates:</b> Please check the Programme Title and the Module Title to ensure that you have received the correct examination paper. If in doubt please contact an Invigilator.</p>
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## SECTION A

- Q1. (a) What is benchmarking? (6 marks)
- (b) What are the benefits of benchmarking in a quality organisation? (7 marks)
- (c) List three areas of an organisation that can be benchmarked. (6 marks)
- (d) List three sources of data that organisations can use to benchmark. (6 marks)

Q2. (a) Write a detailed account of documentation in a quality management system under the following headings:

- (i) Quality Manual (9 marks)
- (ii) Standard Operating Procedures (5 marks)
- (iii) Batch Manufacturing Records (5 marks)

(b) Define each of the following:

- (i) Quality of Design (3 marks)
- (ii) Quality of Conformance (3 marks)

Q3. (a) Discuss the importance of quality circles for quality improvement under the following headings:

- (i) Quality circle components (6 marks)
- (ii) Operation of a quality circle (5 marks)
- (iii) Benefits of quality circles (5 marks)

(b) List two other types of quality improvement team. (4 marks)

(c) Write a brief note on training in quality. (5 marks)

## SECTION B

- Q4. (a) What is Product Liability? (5 marks)
- (b) Write a brief summary of the main principles of the EC Directive on strict product liability. (10 marks)
- (c) Outline the content of a typical product liability prevention program in industry. (10 marks)
- Q5. (a) Explain and show an example of each of the seven Quality Control Problem Solving tools. (15 marks)
- (b) Outline the main elements of a typical customer complaints handling system. (10 marks)
- Q6. (a) Define each of the following quality cost categories:
- (i) Cost of Conformance (COC) (5 marks)
  - (ii) Cost of Non-Conformance (CONC) (5 marks)
- (b) List TWO examples of COC and CONC (5 marks)
- (c) Explain both the traditional and modern economic models of quality of conformance. (10 marks)