

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examinations 2015

**Module Title: Food and Healthcare Toxicology –
Continuous Assessment Module**

Module Code: CHEM7003

School: Science and Informatics

Programme Title(s): Bachelor of Science (Honours) Herbal Science – Year 3
Bachelor of Science (Honours) Nutrition and Health Science – Year 3
Bachelor of Science Food Science and Technology – Year 3

Programmes Code(s): SHERB_8_Y3
SNHSC_8_Y3
SFSTE_7_Y3

External Examiner(s): Prof Torres Sweeney

Internal Examiner(s): Dr Aoife McCarthy

Instructions: Answer question one **and** two other questions.
All questions carry equal marks.

Duration: 2 Hours

Sitting: Autumn 2015

Requirements for this examination:

Note to Candidates: Please check the Programme Title and the Module Title to ensure that you have received the correct examination. If in doubt please contact an Invigilator.

Answer question one **and** two other questions.

Q1. Write notes on all of the following:

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|-------|---|-----------|
| (i) | Acetaminophen metabolism and toxicity | (5 marks) |
| (ii) | Determination of EC ₅₀ values using <i>Daphnia pulex</i> | (5 marks) |
| (iii) | Competitive ELISA | (5 marks) |
| (iv) | Principle of the AMES test | (5 marks) |

Q2. Write short notes on **four** of the following:

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|-------|----------------|-----------|
| (i) | Glycoalkaloids | (5 marks) |
| (ii) | Patulin | (5 marks) |
| (iii) | Aflatoxin | (5 marks) |
| (iv) | Dioxins | (5 marks) |
| (v) | Acrylamide | (5 marks) |
| (vi) | Lectins | (5 marks) |

Q3. Write an essay on metabolism, using the following headings

- | | |
|--|------------|
| Types of reactions in metabolism | (10 marks) |
| Factors affecting metabolism | (4 marks) |
| Results and consequences of metabolism | (6 marks) |

Q4. Write an essay on food residues, namely pesticides and veterinary drug residues. (20 marks)