

**CORK INSTITUTE OF TECHNOLOGY  
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

**Autumn Examinations 2014**

**Module Title:     Pharmacology (CA)**

**Module Code:             CHEM 8005**

**School:                     Biological Sciences**

**Programme Title:         Bachelor of Science (Honours) in Herbal Science**

**Programme Code:         SHERB\_8\_Y3**

**External Examiner(s):     Prof. Olivia Corcoran**

**Internal Examiner(s):     Ms Anna-Maria Keaveney**

**Instructions:                Answer QUESTION 1 and TWO other questions**

**Duration:             2 Hours**

**Sitting:                 Autumn 2014**

**Requirements for this examination:**

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**Note to Candidates:** 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.

**Q1.**

Describe the following in detail in relation to the clinical effect:

**(50 marks)**

- a. The chemical basis for drug/ herb receptor binding
- b. Bound or unbound drug
- c Agonist and partial agonist
- d. Excretion from the body
- e Volume of distribution of a drug

**Q2.**

Discuss in detail

**(25 marks)**

- 1. The pharmacokinetics of the one compartment model.
- 2. The additional factors that are addressed by the two compartment model

**Q3.**

Compare and contrast the somatic and autonomic nervous system in terms of their nerve fibre arrangements, neurotransmitters, receptors and effector organs.

**(25 marks)**

**Q4.**

Describe in detail

**(25 marks)**

- 1. The effect of phase 1 and phase 2 metabolism on drugs/ herbs.
- 2. The effect of drug/ herb metabolism on toxicity