

**CORK INSTITUTE OF TECHNOLOGY
INSTITIÚID TEICNEOLAÍOCHTA CHORCAÍ**

Autumn Examination 2014

Module Title: Medical Laboratory Practice

Module Code: BIOL7027

School: Science

Programme Title: Bachelor of Science in Applied Biosciences & Biotechnology – Year

Programme Code: SBIBI_7_Y3

External Examiner(s): Dr Tom O Connor

Internal Examiner(s): Mr Michael Healy

Instructions: Answer any 4 questions. Each question is worth a maximum of 25 marks.

Duration: 2 Hours

Sitting: Autumn 2014

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 paper.
If in doubt please contact an Invigilator.

- Q1 Describe the importance and principle of tissue fixation (20 marks). Write a short note on the fixative formalin (5 marks).
- Q2 Describe the structure, function and staining characteristics of leucocytes (20 marks). List some clinical conditions where you would get abnormal white blood cell counts (5 marks)
- Q3 Describe the structure, function and the breakdown of Haemoglobin (25 marks)
- Q4 Describe platelets and their role in haemostasis (12 marks). Describe the laboratory tests performed in the Haematology Laboratory to investigate platelets (13 marks).
- Q5 Describe the main aspects of the ABO Blood Group System (25 marks)
- Q6 Discuss the methods of preparing donor Platelets for transfusion (19 marks). Briefly describe the shelf life, storage conditions and clinical reasons for platelet transfusion (6 marks)