

**UNIVERSITY OF BOLTON**

**SCHOOL OF CLINICAL AND BIOMEDICAL  
SCIENCES**

**BSC (HONS) MEDICAL BIOLOGY**

**SEMESTER TWO EXAMINATION 2021/22**

**BIOLOGICAL BASIS OF DISEASE AND  
THERAPEUTICS**

**MODULE NO: BIO6011**

Date: Tuesday 17 May 2022

Time: 10.00 – 12.00

---

**INSTRUCTIONS TO CANDIDATES:**

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression. **YOU ARE STRONGLY ADVISED TO PLAN YOUR ANSWERS**

There are FIVE questions.

Answer ANY TWO questions.

All questions carry equal marks.

This examination is TWO hours long.

This examination paper carries a total of 100 marks.

School of Clinical and Biomedical Sciences  
BSc (Hons) Medical Biology  
Semester Two Examination 2021/2022  
Biological Basis of Disease and Therapeutics  
Module No. BIO6011

---

**Answer ANY TWO questions; each question is worth 50 marks**

1. Discuss the strategies used to treat medical conditions related to the gastrointestinal tract, and appraise the effectiveness of these strategies.  
[50 marks]
2. Outline the changes that take place during the onset of cancer. As part of your answer, you should compare and contrast the range of therapeutic options available to treat cancer.  
[50 marks]
3. Explain the mechanisms by which viruses such as HIV-1 cause disease and describe, with justification, the range of techniques and therapeutic strategies used to diagnose and treat viral infections.  
[50 marks]
4. Justify the use of the range of drugs used to treat acute coronary syndrome (ACS) by explaining how their effects are relevant to ACS treatment and describing their mechanism of action.  
[50 marks]
5. "Antibiotics can easily be used to treat all types of bacterial infection". Critically evaluate whether or not this statement is true. In your answer, you should describe in detail how antibiotics function, and mechanisms by which bacteria may develop resistance.  
[50 marks]

**END OF QUESTIONS**