

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2022/2023 ACADEMIC YEAR

FOURTH YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE (BMED)

BMED 211: MEDICAL CELL BIOLOGY

STREAM: R

TIME: 2 HRS

DAY: WEDNESDAY [8.30AM – 10.30AM] DATE: 14/12/2022

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

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SECTION A: ANSWER ALL THE QUESTIONS 40MKS**QUESTION ONE**

Explain the relationship between cells and living things. (5 marks)

QUESTION TWO

All cells at their essence have at least three things in common: elaborate this statement. (5 marks)

QUESTION THREE

Write short notes on glycolysis? (5 marks)

QUESTION FOUR

Define and explain the basic roles of tight junctions between cells. (5 marks)

QUESTION FIVE

Explain the two main molecular processes that take place during the cell cycle. (5 marks)

QUESTION SIX

The role of genomic information in the practice of clinical medicine is increasing at a rapid pace. Highlight any six applications of these collections in the modern medical practice. (5 marks)

QUESTION SEVEN

Explain the process of protein synthesis. (5 marks)

QUESTION EIGHT

- (a) Explain the difference between keratinocytes and melanocytes. (2.5 marks)
- (b) Explain the effects of low melanin production on human skin color. (2.5 marks)

SECTION B: ANSWER TWO QUESTIONS ONLY 30MKS**QUESTION NINE**

Describe the origin and the processes involved in the production of cells in blood and lymph. (15 marks)

QUESTION TEN

Discuss in details how the cell Membrane Transport Small Molecules into and out of the cell. (15 marks)

QUESTION ELEVEN

Explain the four phases of the somatic cell cycle. (15 marks)