



“Investing in Africa’s Future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES
DEPARTMENT OF BIOMEDICAL AND MEDICAL LABORATORY SCIENCES
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS DEGREE

NSLS208: IMMUNOLOGY

END OF SECOND SEMESTER FINAL EXAMINATIONS

NOV/DEC 2020

LECTURER: MR G. MALUNGA

DATE: 1 DECEMBER 2020

TIME: 0900 HRS

DURATION: 24 HOURS

INSTRUCTIONS

1. Write your candidate number on your answer sheets.
2. Answer any **ONE** question of your choice.
3. Each full question carries 100 marks
4. Submit your answer script as a PDF document through Moodle ONLY.
5. Use the following specifications in your answer scripts:
Font: Times New Roman
Font size: 12
Line spacing: 2.0
6. Credit will be given for logical, systematic and neat presentations.

Answer any ONE question

Question 1

Coronavirus Disease 2019 (COVID-19) is a respiratory infection which was first reported in December 2019 in **Wuhan, China**. It is caused by a virus called **Severe Acute Respiratory Syndrome Coronavirus 2(SARS CoV-2)**. This disease has spread aggressively to the whole world and scientists are being encouraged to understand its immunology so as to come up with vaccines for its prevention and treatment. Write a detailed account of the immune response to **SARS-CoV-2** and the immunopathological changes which occur in COVID-19 positive patients. **[100 marks]**

Question 2

The development of vaccines for some of the human pathogens has yielded some good results in terms of improving mortality rates especially in children. Citing relevant examples, describe how vaccines are developed in research laboratories. **[100 marks]**

Question 3

Discuss in detail the principles of the following immunodiagnostic techniques

- (a) ELISA [30 marks]**
- (b) Immunochromatography [40 marks]**
- (c) Immunoelectrophoresis [30 marks]**

The End