



"Investing in Africa's Future"

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

SLS209: IMMUNOLOGY PRACTICAL

END OF FIRST SEMESTER FINAL EXAMINATIONS

NOVEMBER 2018

LECTURER: MR G. MALUNGA

DURATION: 3 HOURS

INSTRUCTIONS

Answer **all** questions on the separate answer sheet provided.

Mark allocation for each question is indicated at the end of the question

Credit will be given for logical, systematic and neat presentations

Question 1

You are provided with 2 urine samples labeled **N1** and **N2** from 2 women who are suspected to be pregnant as they have missed their monthly periods for two consecutive months. Carry out the pregnant test on the urine samples using the following two test procedures.

(i) **Direct Latex Agglutination Test**

Use the provided Spinreact hcg-Latex Slide Agglutination Test Kit and the accompanying SOP to carry out a direct latex agglutination test on urines **N1** and **N2**. Record your results and answer the questions below.

(ii) **Rapid Immunochromatographic Test**

Use the provided QuickVue One-Step hcg Combo Test kit and the accompanying SOP to carry out an immunochromatographic pregnancy test on urines **N1** and **N2**. Record your results and answer the questions at the end of the question.

Questions

- (a) Record your results of both tests in the form of a table. [20]
- (b) Explain the principles of both tests used in this practical. [10]
- (c) Comment on your results and give a diagnosis for each sample. [5]
- (d) Which other tests can be done to confirm your results? [2]

TOTAL: 37 MARKS

Question 2

You are provided with a serum sample labelled **H** from an HIV positive patient who has presented to an OI Clinic with jaundice. You are required to screen the patient for Hepatitis B using the provided Hepatitis B Rapid Test kit. Perform the test using the accompanying SOP and record your results.

Questions

- (a) Record your results in the form of a table. [20]
- (b) Explain the principle of the test which you have used. [15]
- (c) Give your diagnosis of the patient and explain your results. [8]
- (d) Which other tests can be used to diagnose Hepatitis B? [2]
- (e) What precautions should be taken when carrying out this test? [3]

TOTAL: 48 MARKS

Question 3

You are provided with two blood samples from a couple which had visited an HIV Testing center. Sample **S** is from the husband and sample **T** is from the wife. You are required to perform an HIV Rapid test using the provided test kits.

- a) Record your results [5]
- b) Explain the principle of the test [5]
- c) Give a possible explanation of your results [3]
- d) What further steps can you do to confirm your laboratory findings? [2]

TOTAL: 15 MARKS