



“Investing in Africa’s future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

NSLS 211: HISTOLOGY PRACTICAL

END OF SECOND SEMESTER FINAL EXAMINATIONS (MAIN)

APRIL 2026

LECTURER: PROF SALISSOU

DURATION: 3 HRS

INSTRUCTIONS

SECTION A: Answer all questions

SECTION B: Spot exam: Answer all questions on a separate sheet provided.

Section A: (40 marks)

1. Carry out the following staining protocol on the slide labelled **A** provided using the method below and submit the slide for marking labelled with student Reg No (20 Marks).

Method

- i. Dewax sections and bring sections to water as follow:
 - a. Xylene 10 dips
 - b. Xylene 10 dips
 - c. Xylene 10 dips
 - d. Absolute alcohol 10 dips
 - e. Absolute alcohol 10 dips
 - f. 95% alcohol 10 dips
 - g. 95% alcohol 10 dips
 - h. Rinse in tap water 10 dips
 - ii. Oxidize in 1% per-iodic acid 10 mins
 - iii. Rinse in tap water 10 dips
 - iv. Place in Schiff's reagent. 15 mins
 - v. Wash in tap water 10 dips
 - vi. Stain nuclei in Harris haematoxylin 15-30 seconds
 - vii. Differentiate in 1% acid alcohol 30 seconds
 - viii. Wash in tap water 10 dips
 - ix. Dehydrate and clear the section as follows:
 - a. 95% alcohol 10 dips
 - b. Absolute alcohol 10 dips
 - c. Absolute alcohol 10 dips
 - d. Xylene 10 dips
 - e. Xylene 10 dips
 - x. Mount in poly-x mountant
 - xi. Label your section using provided stickers.
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2. What is the name of this stain? (2 Mark)
 3. What is the principle of this stain? (4)
 4. What further step (not mentioned above) can help identify substances in the tissue (4)
 5. Describe the staining characteristics of the tissue you have stained (4)
 6. Identify the tissue you have stained. (4)
 7. State ways in which this tissue is adapted to perform its function?(2)

Section B: Spot exam: Answer all questions.

1. H1-H5 are consumables in a histology laboratory. Identify each and state their functions (25Marks).
2. M1-M3 are special stains in histology. Identify the stains and report the results (21 Marks).
3. H 8 is a fixative commonly used in histology.
 - a. Identify the fixative (4Mark)
 - b. State the factors that affect the rate of fixation (10 Marks)