



AFRICA
UNIVERSITY
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COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

SLS 203 HAEMATOLOGY I PRACTICAL SUPPLEMENTARY

END OF SECOND SEMESTER EXAMINATIONS

NOVEMBER 2019

LECTURER: P NAGO

DURATION: 3 HOURS

INSTRUCTIONS

1. Do not write your name on the answer sheet

2. Use Answer Sheets Provided

3. Begin your answer for Each Question on a New Page

4. Credit is Given for Neat Presentation

Question 1

- (a) Perform a differential leukocyte count on the stained peripheral blood smear labeled: DIFF 2019 and record the results. **(25marks)**
- (b) When interpreting the differential count results, clearly explain if making use of only relative(percentage) values can be relied on **(5marks)**
- (c) When performing a differential count, how can one differentiate an eosinophil from a small lymphocyte **(4marks)**

Giemsa's Stain

Staining Procedure for thin smear

1. Add 9 parts of buffered water to one part of stock stain (Geimsa) to prepare the working solution.
2. Put the slides on a staining rack or staining troughs.
3. Flood the fixed blood smear with the 1in10 diluted Geimsa stain and allow standing for 20-30 minutes. Alternatively dip the slides in diluted Geimsa in a staining trough for 20--30 minutes.
4. Gently wash off the stain with a stream of buffered water (tap water or distilled water may be used depending on the pH).
5. Tilt the slides to remove excess water. Wipe the underside of the slides and allow air-drying. Do not blot dry.

Question 2

- a. Perform Erythrocyte sedimentation rate (ESR) Westergren method **(10marks)**

Westergren erythrocyte sedimentation rate (ESR)

Procedure

1. Pipette 0.4 ml of sodium citrate anticoagulant into a small container.
2. Add 1.6 ml of EDTA anticoagulated blood and mix well and pour into the ESR cup.
3. Fill the Westergren pipette with the thoroughly mixed citrated blood and adjust to the '0' mark.
4. Place the pipette into the rack, ensuring it is positioned vertically & allow to sediment undisturbed for 60 minutes.

5. Record the ESR value.

b. List 6 sources of error commonly made when performing an ESR test (**6marks**)