



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE**

SZH 309: CLINICAL PATHOLOGY

DATE: THURSDAY 29TH MARCH 2012 TIME: 8.00 A.M. – 10.00 A.M.

INSTRUCTIONS

Answer ALL questions in Section A and any ONE question from Section B.

Within a section all questions carry equal marks. Illustrate your answers with diagrams and examples where appropriate.

SECTION A: (40 MARKS)

Answer ALL the Questions in this section)

1. Define the following terminologies
 - a) Haematology
 - b) Haematopoiesis
 - c) Thrombocytopaenia
 - d) Hematocrit formation

2. Describe the role of the following organs involved in haematopoiesis
 - a) Kidneys
 - b) Liver
 - c) Spleen
 - d) Bone marrow

3. Three blood samples are taken at various intervals from a cow that is suffering from severe persistent bacterial infection. The first was taken on day 3, the second on day 10 and the third on day 15. Explain the blood smear picture seen in each of these samples.

4. Outline the parameters measured in complete blood count. (CBC).
5. Explain the erythrocyte indices and the formulae used to calculate each of the respective indices.
6. Explain Diazo reagent and its application in measurement of bilirubin.
7.
 - a) State the four general groups of cellular enzymes of hepatocytes used to assess the liver function.
 - b) Explain the meaning of the various levels of alkaline phosphatase in liver function test.
8. Explain the principle of the flame photometer for measurement of electrolytes in a sample.

SECTION B: (30 MARKS)

Answer any ONE question in this section

9.
 - a) Describe in detail the preparation of a good blood smear.
 - b) Discuss how differential leucocyte count is performed in clinical pathology
 - c) Explain neutrophilic leucocytosis
10.
 - a) Describe the various macroscopic parameters evaluated in urinalysis and the likely pathological effects on each of them.
 - b) Discuss the principle of dipstick and the interpretation of a positive nitrite test in urinalysis.
11.
 - a) Describe in details the microhematocrit method and explain the clinical interpretation of low packed cell volume in an animal.