



FACULTY OF SCIENCE

DEPARTMENT OF ZOOLOGY

MODULE HPH2B10 SUPPLEMENTARY EXAM

CAMPUS APK

SSA EXAM DECEMBER 2014

DATE:

SESSION

ASSESSOR(S)

MRS J. DAS NEVES

INTERNAL MODERATOR

**PROF GM WAGENAAR
DR JC VAN DYK**

EXTERNAL MODERATOR

DURATION 1 HOUR

MARKS 50

NUMBER OF PAGES: 3 PAGES

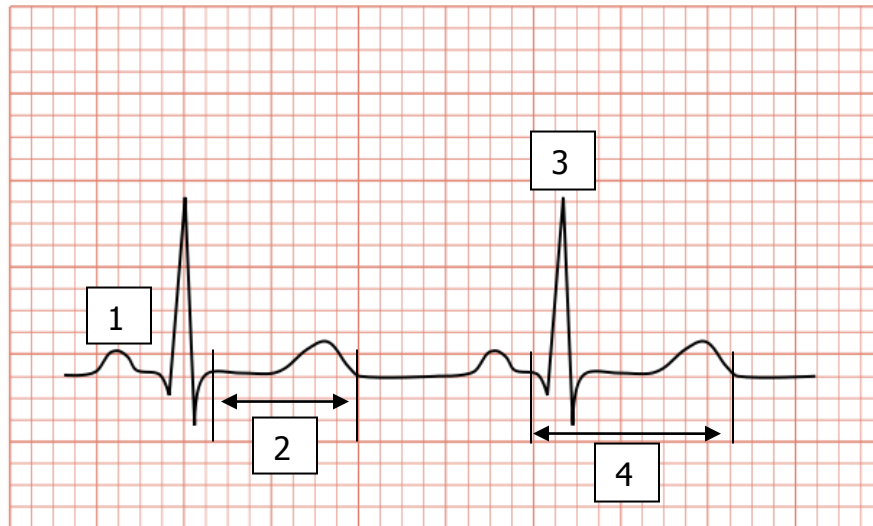
INSTRUCTIONS: **Answer all the questions.**

QUESTION 1

- 1.1 Explain how blood plays a role in regulating pH and ion composition of interstitial fluid. (2)
- 1.2 With the use of an annotated diagram explain the recycling of red blood cell components. (10)
- 1.3 How would hematocrit change after an individual suffered a significant blood loss? (2)

QUESTION 2

- 2.1 Label points 1-4 indicated on the figure below. (4)



- 2.2 Provide a suitable heading for the above figure. (1)
- 2.3 Define stroke volume. (2)
- 2.4 Explain what effect an increase in the end diastolic volume would have on the stroke volume. (2)

QUESTION 3

- 3.1 Explain the difference between innate and specific immunity. (3)
- 3.2 Discuss how natural killer cells react and respond when in contact with an abnormal cell. (5)
- 3.3 Identify the two forms of active immunity and the two forms of passive immunity. (4)

QUESTION 4

- 4.1 Explain the difference between external respiration and internal respiration. (3)
- 4.2 Name the three ways in which carbon dioxide is transported in the blood. Discuss in detail the method by which the majority of the carbon dioxide is transported and expelled from the body. You may use a diagram to explain. (12)

(50)
