

UNIVERSITY OF SWAZILAND
Faculty of Health Sciences
DIPLOMA IN ENVIRONMENTAL HEALTH
FINAL EXAMINATION PAPER 2008

TITTLE OF PAPER: INTRODUCTION TO PARASITOLOGY

COURSE CODE: HSC 104

DURATION: 2.5 HOURS

MARKS: 100

**INSTRUCTIONS: READ THE QUESTIONS & INSTRUCTIONS
CAREFULLY**

ANSWER ANY FOUR QUESTIONS

EACH QUESTION CARRIES 25 MARKS

WRITE NEATLY & CLEARLY

**NO PAPER SHOULD BE BROUGHT INTO NOR
OUT OF THE EXAMINATION ROOM**

**BEGIN EACH QUESTION ON A SEPARATE SHEET
OF PAPER**

**DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED
BY THE INVIGILATOR**

QUESTION ONE

- a. Define a parasite and give an account of the types of the phenomenon of parasitism and the types of parasites. (10 Marks)
- b. Define a host and give an account of the types of hosts in the phenomenon of parasitism. (5 Marks)
- c. Describe the role of vectors in parasitism and explain the differences between a biological vector and a mechanical vector. (10 Marks)

QUESTION TWO

- a. Describe how the protozoan parasites *Plasmodium falciparum*, *Plasmodium malariae*, *Plasmodium ovale*, and *Plasmodium vivax*, that cause human malaria, are transmitted and give an account of the development of these parasites in man and the vector. (15 Marks)
- b. How is the transmission of these *Plasmodium species* to humans prevented or controlled? (10 Marks)

QUESTION THREE

Describe the transmission, pathogenesis, symptoms or signs and control of *Entamoeba histolytica* as occurs in humans. (25 Marks)

QUESTION FOUR

Describe the life cycle, transmission, symptoms or signs, and control of the blood fluke *Schistosoma haematobium*. (25 Marks)

QUESTION FIVE

- a. Name two (2) phyla to which the helminthes of importance to humans belong and give a brief description of the general characteristics of the helminthes in each phylum. (5 Marks)
- b. Indicate the geographical distribution and the location in the bodies of humans of the following helminthes. (20 Marks)
 - i. *Schistosoma mansoni*
 - ii. *Ancylostoma duodenale*
 - iii. *Fasciola gigantica*
 - iv. *Clonorchis sinensis*
 - v. *Taenia saginata*
 - vi. *Echinococcus granulosus*
 - vii. *Paragonimus westermanii*
 - viii. *Wuchereria bancrofti*
 - ix. *Trichinella spiralis*
 - x. *Tricuris trichuria*

QUESTION SIX

Give an account of the public health importance of the following parasites.
(25 Marks)

- a. *Trichnella spiralis*
- b. *Toxoplasma gondii*
- c. *Sarcosystis hominis*
- d. *Taenia saginata*
- e. *Echinococcus granulosus*