

**UNIVWERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
DIPLOMA IN ENVIRONMENTAL HEALTH
FINAL EXAMINATION PAPER 2006-7**

TITTLE OF PAPER: INTRODUCTION TO PARASITOLOGY

COURSE CODE: HSC 104

DURATION: 2 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. Explain the phenomenon of parasitism and name three (3) types of parasitism and explain the meaning of each of these types of parasitism. (10 Marks)
- b. Describe the role of vectors in parasitism and explain the difference (s) between a biological vector and a mechanical vector in this role. (10 Marks)
- c. Describe the effects parasites cause on or in a host. (5 Marks)

QUESTION TWO

- a. Where in the bodies of humans is the protozoan parasite *Trypanosome gambiense* found and what are the symptoms or signs that the human being with this parasite would show? (10 Marks)
- b. Give an account of the geographical distribution of *Trypanosome gambiense* in Africa. (5 Marks)
- c. How does the transmission of this parasite occur in human beings and how could this transmission be prevented? (10 Marks)

QUESTION THREE

- a. Describe the transmission, pathogenesis, symptoms and control of *Entamoeba histolytica*. (15 Marks)
- b. Give an account of the common epidemiological features involved in the transmission of all the protozoan parasites *Leishmania donovani*, *Leishmania infantum*, *Leishmania tropica*, *Leishmania major*, *Leishmania aethiopica*, *Leishmania chagasi*, *Leishmania mexicana* and *Leishmania peruviana* that cause either Visceral Leishmaniasis or Cutaneous Leishmaniasis in humans. (2 Marks)
- c. Which of the *Leishmania species* cause Visceral Leishmaniasis? (3 Marks)
- d. Give an account of how the transmission of the *Leishmania species* is controlled. (5 Marks)

QUESTION FOUR

- a. Describe the development of *Plasmodium falciparum*, *Plasmodium malariae*, *Plasmodium ovale*, and *Plasmodium vivax* in man and the vector. (10 Marks)
- b. Give an account of how the Plasmodium species cause the disease malaria in man. (5 Marks)

- b. How is the transmission of these *Plasmodium species* prevented or controlled?
(10 Marks)

QUESTION FIVE

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

QUESTION SIX

Give an account of the public health importance of the following parasites.

- a. *Taenia saginata*.
- b. *Echinococcus granulosus*
- c. *Toxoplasma gondii*
- d. *Trichinella spiralis*
- e. *Trichomonas vaginalis*.

(5 Marks each)