



**UNIVERSITY OF ESWATINI**  
**Faculty of Health Sciences**  
**Department of General Nursing**

**RE-SIT EXAMINATION PAPER JULY 2019**

**TITLE OF PAPER** :INTRODUCTION TO PARASITOLOGY FOR NURSES  
**COURSE CODE** :GNS104  
**DURATION:** :2.0 HOURS  
**PROGRAMME:** :BACHELOR OF NURSING SCIENCE  
**MARKS** :100

**INSTRUCTIONS:** :READ THE QUESTIONS  
AND INSTRUCTIONS CAREFULLY.  
:ANSWER QUESTION 1 AND ANY OTHER  
THREE(3) QUESTIONS.  
:WRITE NEATLY AND CLEARLY  
:NO PAPER SHOULD BE BROUGHT INTO OR  
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 1: COMPULSORY[All candidates must answer this question]**

**Write TRUE OR FALSE against the question number in the answer booklet. (25)**

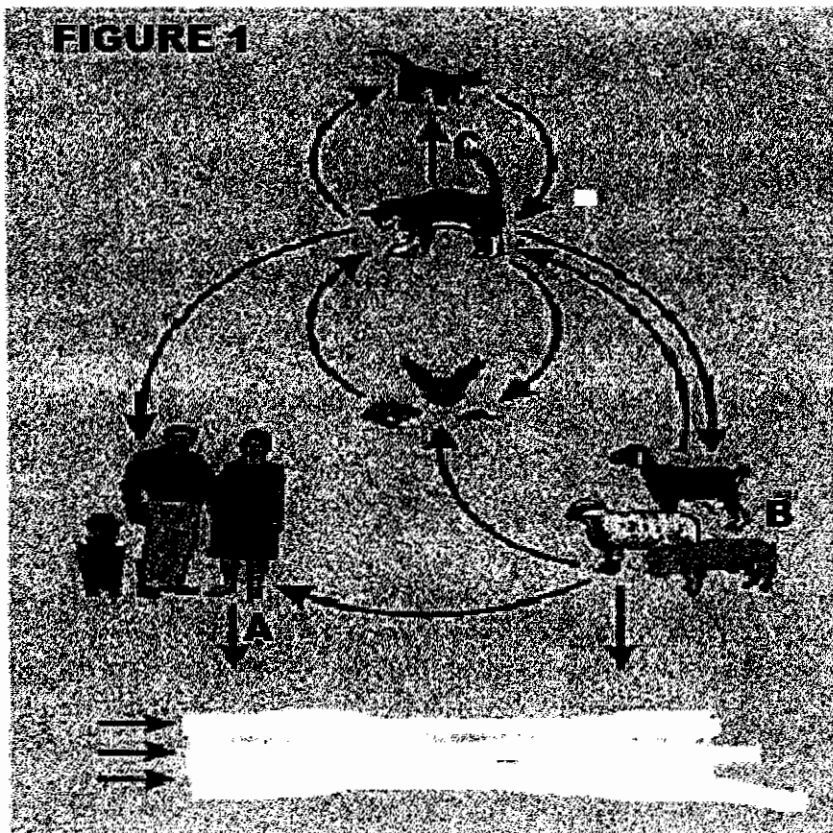
- 1) Coccidia are intestinal protozoan parasites infecting man and belong to the genus *Eimeria*. (2)
- 2) Sporulated Oocysts of *Toxoplasma gondii* are commonly transmitted via contaminated food and water. (2)
- 3) The most common Trematodes species that infects man is *Faciola hepatica* and its indirect life cycle requires a snail as an Intermediate Host. (2)
- 4) The Final Host becomes infected with *F. hepatica* by ingesting the infective stage cercaria with contaminated vegetables. (2)
- 5) Large numbers of immature stages of *F. hepatica* in the small intestine causes destruction of mucous membrane resulting in diarrhoea. (2)
- 6) The life cycle of tapeworms such as *Taeniasaginata* is indirect. Man becomes infected by ingesting uninspected meat carrying the infective stage of the parasite called Rediae. (2)
- 7) The most important and widely distributed nematodes are the Hookworms, *Ascaris* spp., *Enterobius vermiculari* and *Strongyloides stercoralis*. (2)
- 8) The life cycle of most nematodes is direct. They do not require other intermediate hosts to complete their life cycles. (2)
- 9) Most protozoa are highly motile; many have no flagella, cilia and undulating membrane as organs of locomotion. (2)
- 10) Protozoa reproduction is complex and does not involve both asexual and sexual processes at times in the same species. (2)
- 11) Protozoan cysts may remain viable in external environment for many months. (1)
- 12) Life cycle of *Giardia* includes the following developmental stages; Cyst and Trophozoites. (1)
- 13) *Giardia* can interfere with nutrient absorption especially lipids. (1)
- 14) All nematodes parasitic worms consist of unsegmented bodies. (1)
- 15) The predominant species of malaria parasite responsible for disease in all endemic countries in the world is *Plasmodium ovale*. (1)

**QUESTION 2**

- a). List the general morphological features of Trematodes (5)
- b. Write the common names and scientific names of the most significant Trematodes. (4)
- c. List all the components of both the digestive and the reproductive systems of *Fasciola hepatica*. (2)
- d. Briefly outline the general life cycle of *Fasciol hepatica*. (5)
- e. Describe the method of parasitological diagnosis for *F.hepatica* and *Schistosomamansoni*. (2)
- f. List the common clinical symptoms of Schistosomiasis in children. (3.)
- g. Describe the treatment and control methods for Trematodes. (4)

[25 marks]

**QUESTION 3**



Examine Figure 1 above and answer the following questions;

- a. Identify and name the parasite process taking place in Figure 1. (2)
- b. List the names shown by parts A,B,C. (3)
- c. Describe four (4) possible sources of infection of the parasite. (4)
- d. Explain the method of reproduction of the parasite. (2)
- e. Describe the method of parasitological diagnosis. (4)
- f. Briefly describe, giving three (3) examples of general parasite modes of host entry. (6)
- g. List the reasons why some parasites must migrate to certain locations within hosts to complete their life cycle. (4)

[25 marks]

#### QUESTION 4

- a. Briefly sketch and label the anatomy of a blood smear. (5)
- b. What is meant by the red cell area in a blood smear? Why is its clinical importance? (5)
- c. *Giardia lamblia* exist in two stages, name them. (2)
- d. Describe the method by which people become infected with Giardiasis. (2)
- e. What method of reproduction is responsible for an increase in trophozoites of *Giardia lamblia*. (1)
- f. Describe the pathogenesis responsible for the severe diarrhea in individuals infected with *Giardia lamblia*. (2)
- g. Discuss three(3) community initiatives you are likely to recommend to reduce incidence of Giardiasis. (6)
- h. Explain how a Laboratory Technologist may differentiate the following parasites using structural features;
  - i). *Ancylostomaduodenale* and *Necatoremericanus* (1)
  - ii). Rhabtidiform larva of hookworm from that of *strongyloidesstercolaris* (1)

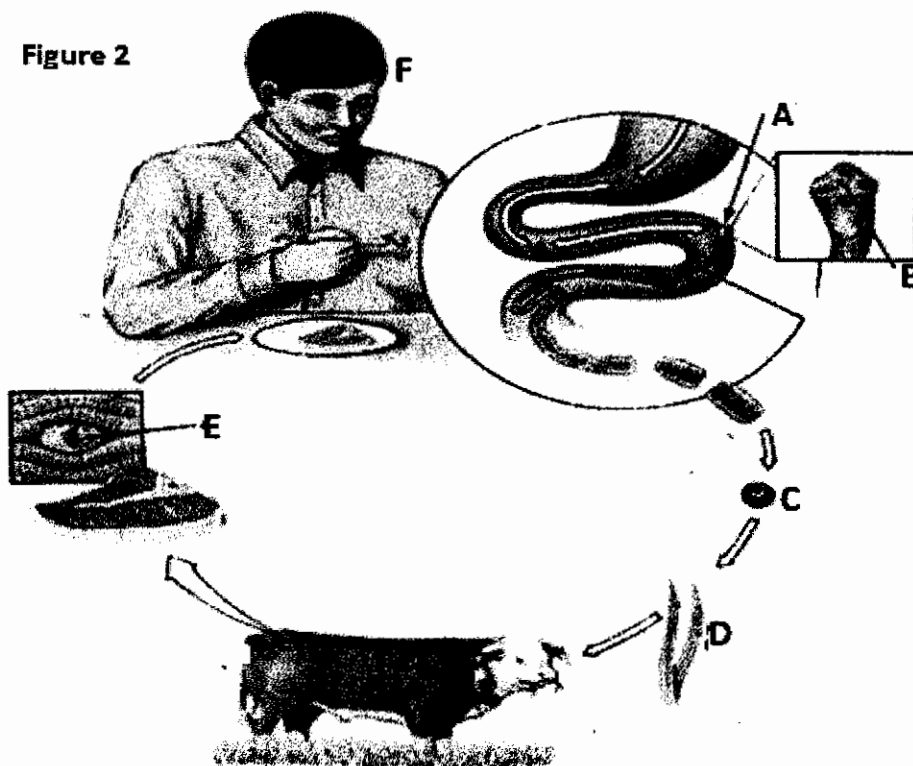
**QUESTION 5**

a.) Copy the table below onto your answer book and complete the table. Answer by filling up the empty boxes. (12)

organism	Transmission	Symptoms	Diagnosis	Treatment
<i>Entamoebahistolitica</i>				
<i>Giardia lamblia</i>				
<i>Balantidium coli</i>				
<i>Trichomonasvaginalis</i>				

b.)Examine **Figure 2** below.

**Figure 2**



[25 marks]

- i.) Explain Figure 2 above. (1)
- ii.) Name the parts labeled A,B,C, D, E, F in Figure 2 (2.5)
- iii.) Describe two (2) ways humans acquire the parasite infection. (1.5)
- iv.) List four (4) predilection sites for the parasite in cattle. (2)
- v.) Explain the reason why the parasite prefers the said predilection sites. (1)
- vi.) Describe the general methods for control and prevention of tape worms. (5)

**[25 marks]**

**END OF QUESTION PAPER**