UNIVERSITY OF SWAZILAND
Faculty of Health Sciences
Department of General Nursing

RE-SIT EXAMINATION PAPER JULY 2018

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 *Fasciola 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 *Taenia saginata* is indirect. Man becomes infected by ingesting un inspected 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 vermicularis* 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 Trophozoitess. (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) Briefly outline the life cycle of hookworms. (5)
b) List the 3 interaction factors that determine hookworm epidemiology. Describe how they could be used for prevention and control. (10)
c) Name 2 hookworm species of medical importance. (2)
d) Describe the pathogenesis of anaemia in hookworm infection. (5)
e) Describe the method of treatment for hookworm infection. (3)

[25 marks]

QUESTION 3
Discuss the life cycle, clinical presentation, management and control of Plasmodium falciparum. [25]

QUESTION 4
Giardiasis commonly results in sudden onset of watery diarrhea with no blood or mucus among infected children leading to dehydration and death.

a) What causes the diarrhea among patients infected with Giardia lamblia? (5)
b) Why is blood and mucus rare in faeces of patients of giardiasis? (2)
c) Explain how children acquire infection with Giardia lamblia. (2)
d) Giardiasis is sometimes referred to as “traveller’s diarrhea” Why is the disease called so? (4)
e) Name one drug recommended for by the World Health Organisation for the successful treatment of giardiasis. (1)
f) Discuss three measures that maybe initiated in a community with high incidence of giardiasis to reduce the disease. (6)
g) What is the epidemiologic importance of finding Entamoeba coli in persons that are not infected with Entamoeba histolytica? (3)
h) Describe ONE feature commonly used by laboratory technicians to differentiate cysts of Entamoeba histolytica from those of Entamoeba coli. (2)

[25 marks]
QUESTION 5
A six months pregnant 23 year old female arrives at the hospital clinic and complaints of a recurring vaginal discharge, itching and burning sensation with urination for several days.

i. What is your tentative diagnosis? (5)

ii. Explain the most useful clinical examination for a confirmative diagnosis. (5)

iii. Explain the expected laboratory results for your suspected diagnosis. (5)

iv. Outline the most appropriate line of treatment and control for the suspected medical condition. (10)

[25 marks]

END OF QUESTION PAPER