

KISII UNIVERSITY SPECIAL/SUPPLEMENTARY EXAMINATIONS

COURSE UNIT: MEDICAL HUMAN PARASITOLOGY

COURSE CODE: CIMS 0123

INSTRUCTIONS

- 1. DO NOT WRITE ANYTHING ON THIS QUESTION PAPER**
- 2. ANSWER ALL QUESTIONS IN SECTION A, B AND ANY OTHER TWO IN SECTION C**

SECTION A. MULTIPLE CHOICES (COMPULSORY) (30MKS)

(TICK THE CORRECT ANSWER(✓)

PART ONE(15 MKS)

- Each of the following statements concerning *Ascaris lumbricoides* is **correct except**:
 - Ascaris lumbricoides* is one of the largest nematode
 - Ascaris lumbricoides* can cause pneumonia
 - Both dogs and cats are intermediate hosts of *Ascaris lumbricoides*
 - Ascaris lumbricoides* is transmitted by ingestion of eggs
- Each of the following statements concerning Kala- Azar is **correct except**:
 - Kala- azar is caused by *Leishmania donovani*
 - Kala- azar is transmitted by the bite of sandflies
 - Kala- azar occurs primarily in rural latin America
 - Kala- azar can be diagnosed by finding amastigotes in bone marrow
- Each of the following statements concerning *Trichomonas vaginalis* is **correct except**:

- a. *T. vaginalis* is transmitted sexually
 - b. *T. vaginalis* can be diagnosed by visualizing the trophozoite
 - c. *T. vaginalis* can be treated effectively with metronidazole
 - d. *T. vaginalis* causes bloody diarrhea
4. Each of the following statements concerning hookworms infection is **correct except**:
- a. Hookworm infection is acquired by humans when filariform larvae penetrate the skin
 - b. Hookworm infection can cause pneumonia
 - c. Hookworm infection can be diagnosed by finding trophozoite in stool
 - d. Hookworm infection is caused by *Necator americanus*
5. Each of the following statements concerning *Giardia lamblia* infection is **correct except**:
- a. *G. lamblia* has both trophozoite and cyst stage in its lifecycle
 - b. *G. lamblia* is transmitted by by fecal- oral route from human and animal sources
 - c. *G. lamblia* causes haemolytic anemia
 - d. *G. lamblia* can be diagnosed by string test
6. Each of the following statements concerning **malaria** is **correct except**:
- a. The female anopheles mosquito is the vector
 - b. Early infection, sporozoites enter hepatocytes
 - c. Release of merozoites from red blood cells causes fever and chills
 - d. The principal site of gametocyte formation is in human gastrointestinal tract
7. Each of the following parasite is transmitted by mosquitoes **except**:
- a. *Leishmania donovani*
 - b. *Wuchereria bancrofti*
 - c. *Plasmodium vivax*
 - d. *Plasmodium falciparum*
8. Pigs or dogs are sources of human infection by each of the following parasites **except**:

- a. *Echinococcus granulosus*
 - b. *Taenia solium*
 - c. *Ascaris lumbricoides*
 - d. *Trichinella spiralis*
9. In malaria, the form of plasmodia that is transmitted from mosquito to human is the
- a. Sporozoite
 - b. Gametocyte
 - c. Merozoite
 - d. Hypnozoite
10. Which of the following agent is used to prevent malaria
- a. Mebendazole
 - b. Chloroquine
 - c. Inactivated vaccine
 - d. Zinc tablet.
11. Charcot- layden crystals are seen in the sputum in infection with
- a. *Paragonimus westermanni*
 - b. *Clonorchissinensis*
 - c. *Fasciola hepatica*
 - d. *Fasciolopsis buski*
12. Protozoan transmitted sexually is
- a. *Trichomonas vaginalis*
 - b. *Entamoeba histolytica*
 - c. *Giardia lamblia*
 - d. *Balantidium coli*
13. congenitally transmitted parasitic infection is
- a. *Pneumocystis carinii*
 - b. *Toxoplasma gondi*
 - c. *Amoebiasis*
 - d. *Trichuris trichura*
14. River blindness is caused by
- a. Loa loa

- b. *Mansonella perstans*
- c. *Mansonella streptocerca*
- d. *Onchocerca volvulus*

15. Primary amoebic meningoencephalitis is caused by

- a. *Acanthamoeba*
- b. *Balamuthia spp*
- c. *Naegleria fowleri*
- d. *Iodamoeba butschii*

PART TWO: MCQS COMPULSORY (15MKS)

(CIRCLE THE CORRECT CHOICE)

1. The following are the three types of symbiotic relationship, except
 - i. Parasitism
 - ii. commensalism
 - iii. Mutualism
 - iv. Predation
 - v. saprophytism
2. Which of the following specimen sample is used for laboratory diagnosis of Ascariasis
 - i. Serum
 - ii. histologic tissue
 - iii. stool
 - iv. vaginal discharge
 - v. sputum
3. What is the primary source of Toxoplasmosis
 - i. contaminated food
 - ii. contaminated water
 - iii. wild animal
 - iv. domestic animal
 - v. Fish
4. The degree of pathogenicity of a disease is known as
 - i. Etiology
 - ii. Virulence
 - iii. Epidemiology
 - iv. Septicemia
 - v. Pathogenesis
5. Which of the following is an obligate parasite?
 - i. *Naegleria fowleri*

- ii. *Entamoeba histolytica*
 - iii. *Plasmodium falciparum*
 - iv. *Diphylobotrium latum*
 - v. *Giardia lamblia*
6. The following are the general characteristics of the class Hexapoda , Except
- i. possess three pairs of legs
 - ii. The body is segmented into two body parts
 - iii. Have a pair of antennae
 - iv. Excretion is mainly by malpighian tubules which help in maintaining ionic balance.
 - v. Respiration occurs by means of internal air tubes known as trachea.
7. Man can be infected with eggs of the following cestode:
- i. *Taenia sagnata*
 - ii. *Hymnelopsis diminuta*
 - iii. *Taenia solium*
 - iv. *Dipylidium caninum*
 - v. *Toxocara canis*
8. Serology is the usual method of diagnosis of:
- i. Taeniasis
 - ii. Giardiasis
 - iii. Trichomoniasis
 - iv. Visceral larva migrans
 - v. Ascariasis
9. The following parasite is tissue dwelling, cystic cavities in the lung with brownish purulent sputum and eosinophilia:
- i. *Ascaris lumbricoides*
 - ii. *Paragonimus westermani*
 - iii. *Echinococcus granulosus*
 - iv. *Entamoeba histolytica*
 - v. *Leishmania donovani*
10. The following statement about schistosomiasis is true:
- i. Schistosomulae penetrate the skin or mucus membrane
 - ii. Praziquantel is effective against all schistosoma species
 - iii. Egg trapped in the tissue stimulate auto-immune reaction
 - iv. The stage of egg deposition occurs in the pulmonary capillaries
 - v. The ticks transmit the schistosome spp
11. The infective stage of female anopheles mosquito in malaria is the:
- i. Sporozoite
 - ii. Ookinite

- iii. Gametocyte
 - iv. Merozoite
 - v. hypnozoite
12. Mode of infection of *Dranculus medinensis* is:
- i. Ingestion
 - ii. Inhalation
 - iii. Skin penetration
 - iv. Inoculation
 - v. sexual intercourse
13. Vaginal discharge of *Trichomonas vaginalis* vaginitis is:
- i. Thin and waterly
 - ii. Greenish frothy
 - iii. Curd-white
 - iv. blood stained
 - v. Dark brown
14. In humans *Cryptosporidium* causes:
- i. Menengitis
 - ii. Diarrhea
 - iii. Pneumonia
 - iv. Dermatitis
 - v. seizures
15. The presence of ingested RBCs is a characteristic of:
- i. *Entamoeba coli*
 - ii. *Iodamoeba butschilii*
 - iii. *Entamoeba histolytica*
 - iv. *Diaentamoeba fragilis*
 - v. *Entamoeba dispar*

SECTION B: SHORT ANSWER QUESTIONS(10MKS)

1. Parasitic infections are still a major problem in the tropics, elucidate factors that determine their geographical distribution?(10mks)
2. In line with the zoonotic parasitic infections, explain various control and preventive measures that can be employed? (10 mks)
3. Describe various sources of parasitic infections citing examples where necessary? (10mks)
4. Based on the following features, distinguish between the cestodes and trematode.(10mks)
 - i. shape
 - ii. sex
 - iii. alimentary canal
 - iv. head end
 - v. body cavity
5. Elaborate on any FIVE specimens used for laboratory diagnosis of parasitic infections? (10mks)
6. Explain briefly the various types of parasites and hosts? (10mks)

SECTION C: SELECT ANY TWO QUESTIONS IN THIS SECTION (40MKS)

1. Using the following sub-headings, discuss the malaria as a significant tropical human parasitic infection (20mks)
 - i. Morphology
 - ii. Life cycle
 - iii. Pathogenesis
 - iv. Epidemiology
 - v. Laboratory diagnosis
 - vi. Treatment and prevention
2. Broadly discuss various effects inflicted by both the host and the parasite on each other in a host -parasite relationship?(20mks):
3. a).Briefly describe the history of medical parasitology?(8mks)

b). Discuss any FOUR modes of transmission of parasitic infections in humans citing examples? (12mks)