



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

DMLS

AML 2107 : MEDICAL PROTOZOOLOGY

SPECIAL/ SUPPLIMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

DATE: Pick Date Sep 2018

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt ALL questions.

Circle the correct answer in section A.

Section A

1- The pathogenic protozoon with extra-intestinal spread through blood is:

- a. *Giardia Lamblia*
- b. *Entamoeba coli*
- c. *Isohora belli*
- d. *Entamoeba histolytica*

2- *Entamoeba histolytica* trophozoites encyst in:

- a. The wall of lower part of small intestine
- b. The wall of the recto-sigmoid colon
- c. The lumen of the colon
- d. None of the above

3- *Naegleria fowleri* is:

- a. Permanent parasite of man
- b. Free living amoeba

- c. Non pathogenic
- d. Found in running water stream

4- Liver abscess is a known complication of infection with:

- a. *Fasciola hepatica*
- b. *Giardia lamblia*
- c. *Schistosoma mansoni*
- d. *Entamoeba histolytica*

5- *Toxoplasma gondii* is transmitted to human by:

- a. Ingestion of soil contaminated by oocyst from cats
- b. Vector transmission
- c. Congenital transmission from mother with acute toxoplasmosis
- d. Organ transplant and blood transfusion (infected donor)

6- *Cryptosporidium* multiplies in:

- a. The lumen of small intestine
- b. The brush border of epithelial lining of small intestines
- c. The lumen of large intestine
- d. None of the above

7- Oocyst of *Toxoplasma* is found in:

- a. Human tissue
- b. The brain of chronic patients
- c. Faeces of infected cat
- d. All of the above

8- Trophozoite of *Toxoplasma* is:

- a. Infective by ingestion
- b. Free living
- c. Found in chronic infection
- d. Obligatory intracellular parasite

9- *Giardia lamblia* affects mainly:

- a. Upper small intestine
- b. Uaecum
- c. Uolon
- d. Rectum

10- Flask shaped ulcers in the colon are caused by:

- a. *Giardia lamblia*

- b. *Acanthamoeba*
- c. *Entamoeba histolytica*
- d. *Naegleria fowleri*

11- Which statement is not true about *Trichomonas vaginalis* infection:

- a. Is caused by protozoan parasite
- b. The infective stage is the trophozoite
- c. Causes vaginal discharge in females
- d. Has an indirect life cycle

12- *Trichomonas vaginalis* locomotes via :

- a. Pseudopodia
- b. Cilia
- c. Flagella
- d. None of the above

13- The following statements are correct regarding giardiasis except:

- a. Transmitted by ingestion of cyst
- b. Affects mainly the upper small intestine
- c. Diagnosed by examination of stool or duodenal contents
- d. Most infections are symptomatic

14- Infection with *Giardia lamblia* is through:

- a. Ingestion of the trophozoite stage
- b. Ingestion of the cyst stage
- c. Ingestion of the egg
- d. Ingestion of the larvae

15- After ingestion of *Giardia lamblia*, cyst hatching takes place in the :

- a. Stomach
- b. Lower part of small intestine
- c. Upper part of small intestine
- d. Colon

16- The parasite that results in symptoms of duodenitis is:

- a. *Entamoeba coli*
- b. *Balantidium coli*
- c. *Entamoeba histolytica*
- d. *Giardia lamblia*

17- The protozoon causing dysenteric symptoms is :

- a. *Balantidium coli*

- b. *Entamoeba coli*
- c. *Giardia lamblia*
- d. *Entamoeba histolytica*

18- The protozoon transmitted mainly by sexual contact is:

- a. *Trichomonas hominis*
- b. *Dientamoeba fragilis*
- c. *Trichomonas vaginalis*
- d. *Retortamonas hominis*

20- *Trichomonas vaginalis* may inhabit :

- a. The small intestine
- b. The large intestine
- c. The prostate
- d. None of the above

21- relapse in malaria is common in:

- a. *Plasmodium falciparum*
- b. *P. vivax*
- c. Malignant malaria
- d. *P. ovale*

22- The following parasites cause fever except:

- a. *Trichinella spiralis*
- b. *Naegleria fowleri*
- c. *Hymenolopis nana*
- d. *Plasmodium vivax*

23- There is lymphadenopathy in the following infections except:

- a. African trypanosomiasis
- b. Toxoplasmosis
- c. Schistosomiasis
- d. Kala-azar

24- in visceral Leishmaniasis culture of the biopsy material on NNN medium results in :

- a. Amastigote form
- b. Promastigote form
- c. Epimastigote form
- d. Leishmania form

25- The following statements are true regarding plasmodium falciparum infection:

- a. It causes malignant tumour

- b. Relapses occur every 3 months
- c. It's characterized by severe anemia
- d. Characteristically paroxysms occurs every 72 hours

26- which statement is false regarding cutaneous Leishmaniasis :

- a. It's caused by leishmania major
- b. transmitted by tsetse fly
- c. Diagnosed by skin smear
- d. Endemic in Saudi Arabia

27- African trypanosomiasis is caused by :

- a. *Trypanosoma brucei*
- b. *Trypanosoma cruzi*
- c. *Trichinella spiralis*
- d. *Trichuris trichura*

28- Nephrotic syndrome in plasmodium malariae is due to:

- a. Deposition of immune-complexes in glomerular capillaries
- b. The sever anemia
- c. Hypoproteinemia
- d. None of the above

29- cerebral malaria is a known complication of infection with:

- a. *Plasmodium falciparum*
- b. *P. vivax*
- c. *P. ovale*
- d) *P. malariae*

30- Sporogony takes place in:

- a. Human red blood cells
- b. The liver cells
- c. Mosquitoes
- d. Human white blood cells

31- Malaria attacks (paroxysms) are caused by:

- a. Release of toxins from RBC
- b. Invasion of RBC by merozoites
- c. Severe hemolytic anemia
- d. All of the above

32- Schizonts of malaria parasite are not seen in peripheral blood in:

- a. *P. vivax*

- b. *P. falciparum*
- c. *P. ovale*
- d. *P. malariae*

33- In Kala-azar the spleen is enlarged due to:

- a. Portal hypertension
- b. Bacterial infection
- c. Proliferation of reticular system
- d. None of the above

34- Stained smears from organ in Kala-azar show:

- a. Amastigote form
- b. Leptomonas form
- c. Epimastigote form
- d. Crithidia form

35- Regarding visceral Leishmaniasis:

- a. It causes enlargement of liver and spleen
- b. Is caused by leishmania tropica
- c. Characterized by fever
- d. Transmitted by direct contact with faeces from infected person

36- Nephrotic syndrome occurs more with :

- a. *Plasmodium vivax*
- b. *P. Malariae*
- c. *P. ovale*
- d. *P. falciparum*

37- *Plasmodium falciparum* is the most serious due to:

- a. Absence of true relapse
- b. Irregular paroxysms
- c. Adherence and blocking of capillaries of internal organs
- d. Multiple infections inside the RBC's

38- Black water fever is due to:

- a. Blockage of capillaries to internal organs
- b. Rupture of infected and non infected RBC's
- c. Hypoglycemia
- d. Multiple infections inside the RBC's

39- Plasmodium life cycle in female mosquito is named:

- a. Gametogony

- b. Schizogony
- c. Sporogony
- d. All the above

40- In cutaneous leishmania the infective stage is:

- a. Leishmania form
- b. Amastigote form
- c. Promastigote form
- d. None of the above

SECTION B

41. a) Draw a well labelled diagram of the *Giardia lamblia* trophozoite (10mks)

b) Outline the formal ether concentration technique (10mks)

42. a) Explain briefly the various types of parasites and hosts (14mks)

b) Explain the three types of symbiotic relationships and give examples (6mks)

43. a) Outline the direct methods of stool analysis in parasitology laboratory (8mks)

b) Give the infective forms of the following parasites (6mks)

- i. *Entamoeba histolytica*
- ii. *Cryptosporidium parvum*
- iii. *Trypanosoma gambiense*
- iv. *Toxoplasma gondii*
- v. *Trichomonas vaginalis*
- vi. *Plasmodium falciparum*

c) Give the vector host of the following parasites (6mks)

- i. *Entamoeba histolytica*
- ii. *Trypanosoma gambiense*
- iii. *Trypanosoma cruzi*
- iv. *Plasmodium falciparum*
- v. *Leishmania donovani*
- vi. *Wuchereria bancrofti*