



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

**UNIVERSITY EXAMINATION FOR:**

**BMLS**

**AML4203 : MEDICAL PROTOZOOLOGY**

**END OF SEMESTER EXAMINATION**

**SERIES: DECEMBER 2016**

**TIME: 2 HOURS**

**DATE: 10 Dec 2016**

## **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.**

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1. The pathogen transmitted by Triatomine bug in South America is:-
  - a. Leishmania
  - b. L.D Body
  - c. Diplytobothrium latum
  - d. Tripanosoma B. cruzi
  - e. Ispundia
  
2. Leshmama Ethiopia is transmitted by:-
  - a. Sand fly
  - b. House fly
  - c. Tsetse fly
  - d. Reduviid bugs
  - e. Culicoides

3. *Toxoplasma gondii* is acquired by:-
  - a. Eating undercooked fish
  - b. Ingesting oocysts in the feces of felins
  - c. Ingesting under cooked chicken
  - d. By drinking fresh juices
  - e. Sexual intercourse
  
4. *Babesia microti* Trophozoites are found in:-
  - a. Red blood cells of the injected animals
  - b. White blood cells of the injected animals
  - c. In monocytes
  - d. Tissues
  - e. Platelets
  
5. Romanas sign is a clinical feature associated with one of the following pathogens
  - a. *Leishmania donovani*
  - b. Onchocerciasis
  - c. Chaga disease
  - d. *Trypanosoma b. gambiense*
  - e. Onchocerciasis
  
6. The pathological condition called amoeboma is characteristics for:-
  - a. Chagas disease
  - b. *Entamoeba histolytica*
  - c. *Leishmania*
  - d. *Naegleria fowleri*
  - e. *Balantidium coli*
  
7. The most pathogenic plasmodium is:-
  - a. *Plasmodium vivax*
  - b. *Plasmodium ovale*
  - c. *Plasmodium falciparum*

- d. Plasmodium malariae
  - e. Plasmodium knowlesi
8. The characteristic feature for the diagnosis of plasmodium falciparum is one of the following:-
- a. Multiple infection
  - b. Distorted cytoplasm
  - c. The presence of schuffners dots
  - d. Band form
  - e. Red blood cell crenation
9. The cats can be infected by Toxoplasmosis by feeding on:-
- a. Infected rats
  - b. Infected chicken
  - c. Infected beef
  - d. Infected mutton.
  - e. Infected rats with tissue cysts
10. The transmission of Naeglesia towleri is associated with:-
- a. Dirty contaminated swimming pools
  - b. Unchlorinated water
  - c. Contaminated salads
  - d. Infected beef
  - e. Ingesting infected beef
11. Naegleria fowleri pathology is specifically in :-
- a. The gut
  - b. The small intestines
  - c. The brain
  - d. The liver
  - e. In the stomach
12. The following protozoa do not have cysts:-
- a. *Entamoeba coli*
  - b. *Trichomonas tenax*
  - c. *Giardia lamblia*

d. *Entamoeba hartmani*

e. *Iodamoeba bustchili*

13. The urogenital protozoa include:-

a. *Trichomona tenax*

b. *Trichomonas vaginalis*

c. *Trychomonas buccalis*

d. *Trichomonans auspicus*

e. *Entamoeba histlytica*

14. The pathogen causting mega colon is one of the followin:-

a. Trypanosome b. gambiense

b. Trypanosome b. rhodesiense

c. Try[anosoma b. bruzi

d. Trypanosome b. cruzi

e. *Entamoeba coli*

15. The most pathogenic with rapid disease progression is:-

a. T. b rhodesiense

b. T.b gambie nse

c. T.b bruzi

d. T.b cruzi

e. *Leishmania*

16. The Flgelate which parasitize the white blood cells is:-

a. *T. b cruzi*

b. *T. b gamiense*

c. *T. b rhodesiense*

d. *T. b bruzi*

e. *Trichomonus verginalis*

17. The leishmaina pathogen that cause lesious and metastasize mucosal tissue is:-

a. *Leishmania ethiopica*

b. *Leishmania donovain*

c. *Leishmania tropics*

- d. Mucocutaneous leishmania
- e. Infantile Leishmaniasis

18. The Asian tiger mosquito transmits one of the following viruses.

- a. West Nile virus
- b. Chingungunya virus
- c. Hiv virus
- d. Dengue virus
- e. Malaria

19. The infective stage of malaria parasite to mosquito vector is:-

- a. Gametocytes
- b. Schizonts
- c. Merozoites
- d. Sporozoites
- e. Hypozoites

20. The male gametocyte when stained with Giemsa stain appears:-

- a. Blue
- b. Pink
- c. Black
- d. Red
- e. Black

21. The purpose of making both thick and thin smears for malaria parasite diagnosis is:-

- a. Detection and identification species
- b. Detection and reporting
- c. Make it easy to read
- d. Controlling diagnosis
- e. Proper planning

22. Entamoeba histocytica's trophozoite primary station is:-

- a. Colon
- b. Small intestine
- c. Brain
- d. Lungs
- e. Liver

23. The number of nuclei of Entamoeba coli is

- a. 4
- b. 2
- c. 1
- d. 8
- e. Upto 10

24. The best method of controlling intestinal protozoa include:-

- a. Wash salads properly before eating
- b. Wash hands after meals
- c. Wash plates before putting food
- d. Drink clean water.
- e. Prevent faecal contact

25. The amoeba whose cytoplasm carries RBC is

- a. Entamoeba coli
- b. Naegleria fowbri
- c. Entamoeba histolytica
- d. Entamoeba dispar
- e. Entamoeba hartmani

26. The Diagnosis of *Balantidium coli* relies on:-
- The presence of a nucleus
  - Dimorphism of the nucleus
  - Presence of cilia
  - Presence of cytopigment
  - Golgi body
27. Splenomegaly is a symptom of:-
- Kala- azar
  - Spundia
  - Culaneus Leishmaniasis
  - Leishmania tropica*.
  - Infantile leishmaniasis
28. The infective stage of trypanosome is:-
- Metacyclic trypomastigote
  - An amastigote
  - Promastigote
  - Trypomastigote
  - LD body
29. The promastigote form of *Leishmania* is formed in:-
- The vector
  - The Leukocytes
  - The RBC
  - The human tissue
  - The animal host

30. The control method against malaria parasite includes:-

- a. Integrated strategy
- b. Use of pyrethroic products
- c. Biological by use of predacious organisms
- d. Physical controls
- e. Treat the infected

**SECTION B**

1. Describe the life cycle of malaria parasite both human and vector stages -----20 marks

2. a) Discuss the laboratory technique for the formal ether concentration method---15 marks

b) Explain the importance of every step-----5 marks