



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
MEDICAL LABORATORY SCIENCES
BMLS 13M REGULAR

AML 4203 : MEDICAL PROTOZOOLOGY

SEMESTER EXAMINATION

APRIL 2014 SERIES

2

HOURS

Instructions to candidates:

This paper consists of **TWO** sections **A** and **B**

Section A -Contains MCQS, Answer **ALL** questions in **Section B**.

SECTION A - MCQs - (30marks)

1. The condition sleeping sickness is caused by:-
 - a) Trypanosoma cruzi
 - b) Tsetse fly, (Glossina)
 - c) Leishmania donovani
 - d) Trypanosoma gambiense
 - e) Sand flies
2. Diagnosis of malaria relies on demonstration of ring forms in:
 - a) Platelets
 - b) White blood cells
 - c) Red blood cells
 - d) Liver cells
 - e) Plasma cells

3. *Dientamoeba fragilis* is classified under
 - a) Ciliata
 - b) Sporozoa
 - c) Coccidian
 - d) Zoomastigophora
 - e) Amoeba

4. The following are mode of reproduction except
 - a) Binary fission
 - b) Pseudopodia
 - c) Conjugation
 - d) Sperogony
 - e) Schizogony

5. The African trypanosomiasis is transmitted by:
 - a) *Triatoma*
 - b) Sandfly
 - c) Mosquito
 - d) *Simulium*
 - e) *Glossina*

6. One of the following protozoa is found in swimming pool:-
 - a) *Trichomonas vaginalis*
 - b) *Trichomonas tenax*
 - c) *Entamoeba histolytic*
 - d) *Naegleria fiuleri*
 - e) *Entamoeba gingivelis*

7. The stage of malaria parasite that is transmitted from human is:-
 - a) Gametocyte
 - b) Sporozoites
 - c) Schizoite
 - d) Merozoites
 - e) Ring forms

8. Which is the infective farm of *Giardia lamblia*
 - a) Trophozoite
 - b) Cyst
 - c) Precyst
 - d) Pseudocyst

9. Shufflers dots is the characteristics of :-
 - a) *Plasmodium malariae*
 - b) *Plasmodium falciparum*
 - c) *Plasmodium ovale*
 - d) *Plasmodium vivax* and *pifalciparum*
 - e) *Plasmodium malariae* and *ovale*

10. Pseudopodia is the organel for locomotion of:-
- Giardia lamblia
 - Balantidium coli
 - Trichomonas vaginalis
 - Entamoeba histolytica
 - Trichomonas tenax
11. The cell mouth of protozoa is referred to:-
- Cytopage
 - Cytostome
 - Karyosome
 - Contractile vacuole
 - Parabasal body
12. One of the flagellate protozoa is pathogenic :-
- Entamoeba histolytica
 - Entamoeba coli
 - Balantidium coli
 - Entamoeba gingivalis
 - Trichomonas vaginalis
13. The pathogenic ciliate is diagnosed in stool by:-
- Two nucleated cyst
 - Iodine cyst
 - A large cyst
 - Retractile nuclei
 - Small cyst
14. In Kenya leishmaniasis is transmitted by:
- Simulium flies
 - Chrysops flies
 - Culicoides flies
 - Phlebotomes flies
 - Mosquitoes
15. A pale clay bucky and smelly stool is suspected of:-
- Balantidium coli
 - Entamoeba histolytica
 - Giardia lamblia
 - Chilomastix mesnili
 - Iodamoeba butschli
16. Trichomonas tenax resides in
- Vagina
 - Mouth
 - Duodenum
 - Small intestine
 - Appendix

17. The bird eye view or band form is characteristic of:
- P. falciparum
 - P. Vivax
 - P. Malariae
 - P. Ovale
 - P. Ovale and P. Vivax
18. Erythrocytic cycle in malaria parasites include:-
- Gametocyte, microgametocyte, ookinet, oocyst
 - Macrogametocytes, microgametocytes, oocyst sporozoites
 - Zygote ookinete, oocyst, sporozoites
 - Schizonts, merozoites, gametocytes, zygote
 - Ring form, Trophozoites, schizonts, merozoites
19. The protozoa that utilize flagella for locomotion is:-
- Trypanosoma
 - Balantidium
 - Iodamoeba
 - Haemosporidia
 - Coccidia
20. Kala-azar is a clinical form of leishmaniasis that is referred to :-
- Espundia leishmaniasis
 - Visceral leishmaniasis
 - Oriental sore
 - Mucocutaneous leishmaniasis
 - Gambian leishmaniasis
21. Cryptosporidic oocyst contains
- Four sporozoites
 - Eight sporozoites
 - Six sporozoites
 - Two sporozoites
 - One sporozoite
22. Which of the following preservative is used in parasitology laboratory?
- 10% formal saline
 - 2% Eosin
 - 4% iodine
 - 20% methanol
 - 30% ethanol
23. American leishmaniasis is caused by:-
- Leishmania Mexicana
 - Leishmania peruviana
 - Leishmania tropica
 - Leishmania chagasi
 - Leishmania donovani

24. The following trypanosome is non-pathogenic :-
- Trypanosoma gambiense
 - Trypanosoma cruzi
 - Trypanosoma rangeli
 - Trypanosoma rhodesiense
 - Trypanosoma Africana
25. Malaria relapse results in reactivation of dormant zoites referred to:
- Hypnozoites
 - Sporozoites
 - Gametocytes
 - Bradyzoites
 - Tachyzoites
26. Espundia is caused by:-
- Leishmania Mexicana
 - Leishmania braziliensis
 - Leishmania peruviana
 - Leishmania chagasi
 - Leishmania Africana
27. Which of the following cysts is having characteristic of being oval, and four refractile nuclei:-
- Dientamoeba fragilis
 - Iodamoeba butschli
 - Entamoeba coli
 - Endolimax nana
 - Entamoeba histolytica
28. The free living amoeba as pathogens include the followings :-
- Entamoeba hartmani
 - Entamoeba polecki
 - Entamoeba gingivalis
 - Naegleria fowleri
 - Entamoeba coli
29. Cutaneous leishmaniasis is also referred to:-
- Kala-azar
 - Espundia
 - Oriental sore
 - Visceral leishmaniasis
 - Mucocutaneous
30. Plasmodium falciparum causes
- Benign tertian malaria
 - Quartan malaria
 - Tertian and quartan malaria
 - Ovale malaria

- e) Malignant tertian malacia

SECTION B ESSAY
(ANSWER ALL QUESTION IN THIS SECTION)

1. (a) Discuss the life cycle of *Entamoeba histolytica* **(5marks)**
(b) Outline five morphological characteristics of *balantidium coli* (Trophozoite/cyst) **(5marks)**
- (c) Discuss the erythrocytic cycle of malaria parasites **(5marks)**
(d) Explain the control/preventive measures that could be instituted against malaria parasites under the following subheading:-
(i) Vector control **(3marks)**
(ii) The parasite infection **(2marks)**
2. (a) Describe five control measures that could be instituted against African trypanosomiasis **(5marks)**
- (b) Discuss how human infection of *Toxoplasma gondii* can be acquired **(5marks)**
- (c) Write three general characteristics of mastigophora (*Zoomastigophora*) **(6marks)**
- (d) Mention four morphological characteristics of *Trichomonas vaginalis* **(4marks)**