



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Applied & Health
Sciences

DEPARTMENT MEDICAL SCIENCES

DIPLOMA IN MEDICAL LABORATORY SCIENCES

AML 2107: MEDICAL PROTOZOOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: MARCH 2014

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

Answer **ALL** questions in sections **A** and **B**
This paper consists of **SEVEN** printed pages

1. The type of malarial anaemia is:
 - a) Megaloblastic
 - b) Microcytic hypochromic
 - c) Normocytic normochromic
 - d) Normocytic hypochromic

2. A person can acquire toxoplasmosis from:
 - a) Pseudocyst in raw meat
 - b) Oocyst in air
 - c) Cleaning out the cat litter box
 - d) All of these

3. An oocyst is found in _____ and a pseudocyst is found in _____
 - a) Humans, cats
 - b) Cats, humans
 - c) Feces, tissue
 - d) Tissue, feces

4. *Eutamoeba histolytica* mainly invades the:
 - a) Liver
 - b) Large intestine
 - c) Small intestine
 - d) Lungs

5. The parasites in fecal specimens that are infective forms of oocysts are:
 - a) Cyclospora
 - b) Isospora
 - c) Cryptosporidium
 - d) Toxoplasma

6. Where is the site of pre-erythrocytic cycle of malaria:
 - a) Anopheles
 - b) Parachymal cells of liver
 - c) Kupfer cells of liver
 - d) Spleen

7. In which of the following amoeba it is not possible to see peripheral chromatin in nucleus:
 - a) *Eutamoeba hartmanni*
 - b) *Eutamoeba coli*
 - c) *Eutamoeba nana*
 - d) *Eutamoeba dispar*

8. All different forms of *Toxoplasma gondii* can be present in the body of:
 - a) Cat
 - b) Human
 - c) Mice

d) Com

9. Which parasitic form is related to congenital toxoplasmosis?

- a) Tachyzoite
- b) Trophozoite
- c) Oocyst
- d) Tissue cyst

10. Which parasite is related to oriental sore:

- a) Leishmania aethiopica
- b) Leishmania infaulum
- c) Leishmania tropica
- d) Leishmania donovani

11. Which one is not Zoonosis

- a) Cryptosporidium histolytica
- b) Entamoeba histolytica
- c) Balantidium coli
- d) Toxoplasma gondii

12. What is the result of exflagellation of plasmodium:

- a) Microgamet
- b) Microgametocyte
- c) Macrogamete
- d) Macrogametocyte

13. Which disease is related to winter boltom's sign?

- a) Sleeping sickness
- b) Chagas disease
- c) Kalaazar
- d) Toxoplasmosis

14. Which is the pathogenic agent responsible for chiclero ulcers?

- a) Leishmania tropica
- b) Leishmania major
- c) Leishmania Mexicana
- d) Leishmania braziliensis

15. A malaria infected person by blood transfusion does not have _____ in his body.

- a) Hypnozoite
- b) Trophozoite
- c) Schizont
- d) Gametocyte

16. The Africa trypanosome are transmitted:

- a) Glassine
- b) Triatoma
- c) Cimex

d) Fleas

17. The following organism have ookinate stage during their life cycles:

- a) Plasmodium
- b) Balanldium
- c) Endamoeba histolytica
- d) Trichomonas hominis
- e) Endamebas coli

18. The following are mode of reproduction except:

- a) Conjugation
- b) Gametogony
- c) Schizogony
- d) Pseudopodia

19. The following are most likely vectors for balanlidiosis

- a) Anopheles
- b) Bed bags
- c) Cockroaches
- d) Fleas
- e) Tsetse fly

20. Facultative parasite are:

- a) Organism that under favorable condition may live either a parasitic or non-parasitic assistance.
- b) Organism that cannot exist without the host
- c) Organism that attach an unusual host
- d) Organism that attack a host and develop no further.

21. In prevention of intestinal protozoa infection one needs to practice the following:

- a) Use of latrine
- b) Washing hand
- c) Wear shocks
- d) Cook beef and pork thoroughly
- e) Cooking vegetable effectively

22. Which of the following protozoa belong to the phylum ciliophora.

- a) Pinasmodium
- b) Amoeba
- c) Balantidium
- d) Lodomoeba butstili
- e) Entamoeba histolytica

23. Which of the following protozoa is found in swimming pool:

- a) Trichomonas vaginalis
- b) Entomoeba coli
- c) Entamoxba butschlia
- d) Naegleria flocileri
- e) Trichomonas tenax

24. The diagnosis of malaria lies on demonstration of ring forms in:
- Cells in bone marrow
 - White blood cells
 - Plasma cells
 - Red blood cells
 - Salivary glands of anopheles mosquitoes
25. The most pathogenic of the four species of malaria parasites:
- Plasmodium ovale
 - P. Malarial
 - P. Faciparium
 - P. Vivax
 - P. Knowlesis
26. The banana shaped gametocytes is diagnostic for which of the following plasmodium species:
- Plasmodium malariae
 - P. Ovale
 - P. Vivax
 - P. Ovale and P. Vixax
 - P. Falciparum
27. Pathogenic amoeba belong to the following species:
- Diantamoeba fragilis
 - Entamoeba coli
 - Lodamoeba butschli
 - Entamoeba polecki
 - Entamoeba histolytica
28. A host that harbor a sexual stage of a parasite is known as:
- Definitive host
 - Intermediate host
 - Reservoir host
 - None of the above
29. The form of protozoa called LD body is common in:
- Kalaazar
 - T. brucci brucei
 - T. brucci rhodensiense
 - T. brucei gambience
 - T. Cruzei
30. The Africa trypanosomes are transmitted by:
- Triatoma species
 - Glossina species
 - Phlebitmus species
 - Cimex species

e) Mosquito

31. The most preferable specimen for diagnosis of visceral leishmaniasis:

- a) Blood
- b) Splenic aspirator
- c) Bone Marrow
- d) Skin ships
- e) Cerebral spinal fluid

32. Erythrocytic cycle in malaria parasite life cycle include the following stages:

- a) Gametocytes, microgametocytes, ookinetes, oocyst
- b) Macrogametocytes, Microgametocytes, oocyst, sporozoites
- c) Zygote, ookinete, oocyst, sporozoite
- d) Schizonts, merozoites, Gametocytes, zygote
- e) Ring form, trophozoites, schizonts, merozoites

33. The class sporozoa include:

- a) Balantidium
- b) Balantidium
- c) Coccidia
- d) Trypanosome
- e) Endolimax
- f) Dientamoeba

34. The protozoa that utilize flagella as organs for locomotion:

- a) Balantidium
- b) Iodamoeba
- c) Trypanosome
- d) Haemosporidia
- e) Coccidia

35. Which of the following amoeba is pathogenic:

- a) Entamoeba gingivalis
- b) Balantidium coli
- c) Trichomonas tenax
- d) Entamoeba histolytica
- e) Trichomonas vaginalis

36. Which of the following is not an intestinal protozoa:

- a) Entamoeba histolytic
- b) Giardia lamblia
- c) Trichomonas vaginalis
- d) Balantidium coli

37. The protozoa that is transmitted via sex is:

- a) Cryptosporidium parvum
- b) Trichomonas vaginalis
- c) Entamoeba histolytica

- d) Giardia lamblia
- e) Balantidium coli

38. The movement of trichomonas vaginalis is effected by:

- a) One flagella and another attached to undulating membrane
- b) Two anterior flagella and another one attached to undulating membrane
- c) Three anterior flagella and another attached to undulating membrane
- d) Four anterior flagella and another one attached to undulating membrane
- e) Five anterior flagella and one attached to undulating membrane

39. Entamoeba histocytica gain access to the liver through:

- a) Lymphatics
- b) Portal system
- c) Direct invasion
- d) Through perineural space

40. Malignant malaria is caused by:

- a) Plasmodium vivax
- b) Plasmodium falciparum
- c) Plasmodium malarial
- d) Plasmodium ovale

SECTION B:

Question One

- a) Discuss the pathogenicity of Entamoeba histolytica (5 marks)
- b) List FIVE preventive and control measures that can be instituted against Entamoeba histolytica (5 marks)
- c) Briefly discuss the life cycle of Entamoeba histolytica (10 marks)

Question Two

- a) What are the symptoms and pathology of trichomonas vaginalis in females and in males. (10 marks)
- b) Outline control preventive measures of malaria parasite injection under each of the following sub headings. (10 marks)
 - (i) Personal protection (3 marks)
 - (ii) Vector (3 ½ marks)
 - (iii) The parasite (3 ½ marks)

Question Three

- a) Define the following terms: (10 marks)
 - (i) Definitive host (2 marks)
 - (ii) Intermediate host (2 marks)
 - (iii) Vector (2 marks)
 - (iv) Parasite (2 marks)

(v) Host

(2 marks)

b) Describe FIVE characteristics of intestinal parasite.

(10 marks)