



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Applied & Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATIONS FOR DEGREE IN
BACHELOR OF MEDICAL LABORATORY SCIENCES

(BMLS 14J, 13S, 14M)

AML 4203: MEDICAL PROTOZOOLOGY

SUPPLEMENTARY/SPECIAL EXAMINATIONS

SERIES: JUNE/JULY 2015

TIME: 2 HOURS

INSTRUCTIONS:

- Answer all questions. No Guess work. Circle the Correct Answer in Section A.
This paper consists of Six printed pages
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SECTION A

1. The protozoan cyst with FOUR nuclei is that of
 - A. E.Histocytica
 - B. E.coli
 - C. Iodamoeba buschlii
 - D. Endosmax nans
 - E. Balantidium coli
2. The diagnosis of E. histolytica relies on
 - A. Flagella on the surface of the cyst
 - B. Nuclei dimorphism
 - C. Presence of cilia
 - D. Presence of 4 nuclei in the cyst
 - E. Presence of RBCs in the cytoplasm

3. Which of the following is not an apicomplexa
 - A. *Isopora belli*
 - B. *Plasmodium malariae*
 - C. *Ascaris lumbricoides*
 - D. *Babesia bigemina*
 - E. *Blastocystis hominis*

4. The diagnosis of *P. ovale* depends on:
 - A. Presence of a band form in the host cell
 - B. *P. ovale* affects the size of the host cell
 - C. *P. ovale* enlarges the host cell
 - D. *P. ovale* cytoplasm is amoeboid
 - E. *P. ovale* has a banana shaped gametocyte

5. The following are factors which may contribute to the pathology of plasmodium
 - A. The number of schizonts for a given species
 - B. Type and age of the host cell
 - C. Formation of Pf EmPs which causes registration
 - D. The lack of rephase
 - E. The shape of the host cell

6. The African trypanosomiasis is transmitted by the following arthropods
 - A. *Phlebotomus* species
 - B. *Glossina* species
 - C. Reduviid bugs
 - D. *Cryptops*
 - E. *Simulium*

7. Chaga's disease is associated with which of the following flagellates
 - A. *Leishmania braziliensis*
 - B. *Trypanosoma brucei cruzi*
 - C. *Trypanosoma brucei rhodesiense*
 - D. *Babesia*
 - E. *Trypanosoma brucei gambiense*

8. *Toxoplasma gondii* is associated with which of the following animals
 - A. Monkeys and pigs
 - B. Cattle and goats
 - C. Humans and cats
 - D. Fowl and birds
 - E. Dogs

9. The flagellates listed below are found in oral cavity of humans.
- A. Chilomastix memili
 - B. Trichomonas hominis
 - C. Trichomonas
 - D. Trichomonas tenax
 - E. Giardia lamblia
10. The diagnostic feature of E. Coli cyst include
- A. Presence of RBCs in the cytoplasm
 - B. 4 nucleated cyst
 - C. 8 nucleated cyst
 - D. A lemon cyst
 - E. 2 nucleated cyst
11. The cause of sequestration due to malaria infection is due to:
- A. P.ovale
 - B. P.falciparum
 - C. P.fEmp
 - D. P.vivax
 - E. P.malariae
12. Transmission of tissue dwelling protozoa has a bearing on
- A. Crowded communities with poor sanitary system
 - B. Poor prevention strategies
 - C. Arthropods
 - D. Attitude
 - E. Schools
13. Intestinal protozoa does not include
- A. E.histolytica
 - B. Pneumocystis
 - C. Babesia microti
 - D. Trichinella spiralis
 - E. Toxoplasma gondi
14. Swimming in unchlorinated pools exposes one to infection with
- A. Entamoeba histolytica
 - B. Naegleria fowleri
 - C. Balantidium coli
 - D. Hookworm
 - E. Endolimax nana

15. The term black water fever refers to
- A. Babesiosis
 - B. Enteroeobas
 - C. Blantidium coli
 - D. Complication of malaria infection
 - E. Toxoplasmosis
16. The best volume for making a thick blood film for malaria parasite identification is
- A. 24l
 - B. 4 ml
 - C. 12ml
 - D. 20 ml
 - E. 40 ml
17. Of the plasmodia species, the following cause host cell enlargement
- A. P. malariae and P. falagasm
 - B. P.ovale and P. vivax
 - C. P. polare and P. falaparum
 - D. P. Vivax and P. falaparum
 - E. P. relictum and P. polare
18. The purpose of malaria parasite count is
- A. To provide treatment plan
 - B. To establish infection density
 - C. To provide quality assurance
 - D. To improve on the diagnose
 - E. To delay treatment
19. Glossina species is a vector for transmission of the following protozoa
- A. Trypanosomea brucei cruzi
 - B. Trypanosome b. rhodesiense
 - C. Trypanasoma bracei bruci
 - D. Leshmania tropica
 - E. Naegleris fowleri
20. The banana shape is a characteristic appearance of
- A. P. ovale
 - B. P. malariae
 - C. P.falapanum
 - D. P.polare
 - E. P.vivax

21. The band form is associated with trophozoite of one of the following
- A. *P. falciparum*
 - B. *P. relictum*
 - C. *P. malariae*
 - D. *P. ovale*
 - E. *P. polare*
22. Leishman stain is one of the
- A. Tomanowsky stains
 - B. Calcium base
 - C. Canada balsam
 - D. Orange red
 - E. Cellular stains
23. The following are features found on the infected RBC with *P. vivax*
- A. Schuffner's dots
 - B. Double infection
 - C. Comet shape
 - D. Band form
 - E. James dots
24. The following are preventive measures against *Naegleria fowleri*
- A. Avoid swimming in unchlorinated pools
 - B. Put on shoes regularly
 - C. Bath warm water
 - D. Avoid swimming in the sea
 - E. Wash hands before and after meals
25. Salivarian transmission is a phenomenon associated with
- A. *Leishmana* species
 - B. Chaga's disease
 - C. *Tryptosporidium parvum*
 - D. *Isospora belli*
 - E. *E. histolytica*
26. Which of the following is the infectious stage of *Trypanosoma cruzi* to humans
- A. Trypomastigote
 - B. Metacyclic hypomastigote
 - C. Promastigote
 - D. Amastigote
 - E. Sporozoites

27. Which one of the following is not an intestinal epicomplexa
- A. *Cyptosporidium parvum*
 - B. *Babesia bigemina*
 - C. *Pneumocystis carinii*
 - D. *Isospora belli*
 - E. *E.histolytica*
28. The stage of malaria infections to man is
- A. Merozoites
 - B. Sporozoites
 - C. Gametocytes
 - D. Schizont
 - E. Hypnozoites
29. Microgametocyte cytoplasm of *P. falciparum* is
- A. Pink
 - B. Blue
 - C. Orange
 - D. Green
 - E. Brown
30. The following protozoa are opportunistic organisms except
- A. *Cryptosporidium parvum*
 - B. *Endolimax nana*
 - C. *Pneumocystis*
 - D. *E. histolytica*
 - E. *Iodo amoeba bustchlii*

SECTION B (40 Marks) Attempt all questions in this section

1. a) Describe the life cycle of *Trypanosoma cruzi*. **(15 marks)**
- b) Discuss the life cycle of *Entamoeba histolytica*. **(5 marks)**
2. Discuss in details the control of tissue protozoa. **(20 marks)**