TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

DEPARTMENT OF **MEDICAL SCIENCES**

DIPLOMA IN MEDICAL LABORATORY SCIENCES
(DMLS 12M)

AML 2130 : MEDICAL PROTOZOOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this examination
- *Answer booklet*

This paper consists of **TWO** sections.

Answer all questions in **Section A** and **B.** ½ marks deducted for any wrong answer in **Section A**.

*This paper consists of **6 PRINTED** pages*

SECTION A (40MARKS)

1. The protozoa which infects muscles includes
- **a)** Toxoplasma
- **b)** Isospora
- **c)** Babesia
- **d)** Plasmodia

2. The infective stage of are apicomplexans is the
   a) Merozoite
   b) Hypmozoite
   c) Sporoite
   d) Metacryptozoite

3. The vector for plasmodium is:
   a) Tick
   b) Simulium
   c) Crysops
   d) Mosquito

4. Babesia is transmitted through
   a) A bite of infected mosquito
   b) Abite of infected tick
   c) Drinking infected milk
   d) Drinking of infected water

5. The specimen that is required for the detection of toxoplasma gondii is
   a) Sputum
   b) Gastric aspiration
   c) Intestinal mycosal scrapings
   d) Stool
6. The control of malaria parasites involves
   a) Treating the infected
   b) Prevention of ector bite
   c) Wash your body with soap
   d) Use of body creams

7. The apicomplexan parasite known to be congenitally transmitted include?
   a) Plasmodia
   b) Toxoplasma
   c) Babesia
   d) Pneumocystis

8. The use of the thin film of the malaria slides
   a) Spelies identification

b) Parasites concentration
c) Increasing the sensitivity of diagnosis
d) Improving the specificity of diagnosis

9. The best specimen used for malaria blood slide is
   a) Venous blood
   b) Arterial blood
   c) Fresh blood
   d) Overnight blood

10. Name the parasites which are apicomplexan
   a) Protozoa
   b) Worms
   c) Plasmodia
   d) Toxoplasma

11. The following is/ are zoonotic apicomplexan
   a) Plasmodia
   b) Babesia
   c) Cryptospporidia
   d) Isospora

12. The diagnostic feature of the trophozotic of E.Coli is
   a) Presence of red blood cells in its cytoplasm
   b) Presence of bacteria in its cytoplasma
   c) Sorrounded by white blood cells
   d) More of the above.

13. Identification of Naegleria fowleri is by
   a) Utilisation of Escherichrae Coli bacteria
   b) Finding of amoeba flagelletes in water.
   c) Increase in C.S.F glucose and reduction in C.S.F. proteins
   d) Presence of polymorph nuclear neutophils and absence of bacteria in C.S.F

14. Which one of the following cannot be used for direct stool microscopy examination
   a) Dobells iodine
   b) Physiological saline
   c) Eosin solution
   d) Oil immersion

15. The African trypanosomiasis is transmitted by
   a) Gloosina
   b) Triatoma
   c) Cimex
   d) Blastella

16. The follofing are flagelletes except
   a) Chitomastic mensineli

b) Trichomonas Hominis
c) Balantiduim coli
d) Trichomonas vaginalis

17. Which one of the following is not an organelle of Balantiduim coli trophozoite
a) Macronucleus
b) Micromucleus
c) Cicia
d) Undulating membrane

18. The following are definitive hosts of lypanosomes which one is not?
a) Game animals
b) Cat
c) Dogs
d) Tsetsefly

19. Trasmission of Giardia lamblia is through
a) Ingestion of infective cyst
b) Injection of the trophozote
c) Bite of a fly
d) Through sexual intercourse

20. Trypanosomes cause the following except
a) Chaga disease
b) Sleeping sickness
c) Afrcan trypanosomiasis
d) Aitaneous leishmaniasis

21. The widely distributed plasmodium specieis is
a) P. Falciparum
b) P. Virax
c) P.Orale
d) P.Malariae

22. The most pathogenic plasmodium species is
a) P.Ovale
b) P.Vivax
c) P.Malariae
d) P.Falciparum

23. The major differences between plasmodium infection and babesia infection includes:
a) Grythrocyte schizogony
b) Formation of sporozotes
c) Lymphocyte invasion
d) Crythrocyte merozoites

24. Laboratory diagnosis of cryptosporidia is achieved by
a) Examination of blood films

b) Kinyous acid-fast stain
c) Gram stain
d) Sudan black B stain

SECTION B ESSAY (60MARKS) Answer all questions

Question ONE

a) State and explain the following
   (i) Parasitic factors
   (ii) Host factors **(10marks)**

b) (i) Draw a well labeled diagram of E.histolytica cyst and give its lifecycle. **(10marks)**

   (ii) Describe the life cycle of E. histolytica **(10marks)**

Question TWO

a) State the clinical features of intestinal giardiasis **(5marks)**
b) Describe the entero-test method used to diagnose giardiasis **(10marks)**
c) State the control and preventive measures for Giardiasis **(5marks)**

Question THREE

Describe the life cycle of plasmodium falciparum. **(20marks)**