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## BRAINWARE UNIVERSITY

Term End Examination 2023  
Programme – DMLT-2021  
Course Name – Clinical Microbiology  
Course Code - DMLT403  
( Semester IV )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Select the incorrect statement regarding malaria

- |   |  |
|---|--|
| a) The female anopheles mosquito is the vector                        | b) Early infection, sporozoites enter hepatocytes                                  |
| c) Release of merozoites from red blood cells causes fever and chills | d) The principal site of gametocyte formation is the human gastrointestinal tract. |

(ii) Identify the parasite that is not transmitted by mosquito

- |                        |                          |
|------------------------|--------------------------|
| a) Leishmania donovani | b) Wuchereria bancrofti  |
| c) Plasmodium vivax    | d) Plasmodium falciparum |

(iii) In malaria infection, select the stage of plasmodia that is transmitted from female anopheles to man

- |               |               |
|---------------|---------------|
| a) Sporozoite | b) Gametocyte |
| c) Merozoite  | d) Hypnozoite |

(iv) Select the drug used to prevent Malaria from the following

- |                        |                |
|------------------------|----------------|
| a) Mebendazole         | b) Chloroquine |
| c) Inactivated vaccine | d) Zinc table  |

(v) Choose the protozoa responsible dysentery

- |                          |                         |
|--------------------------|-------------------------|
| a) Giardia lamblia       | b) Cystoisospora belli  |
| c) Entamoeba histolytica | d) Blastocystis hominis |

(vi) Select the truth with respect to Plasmodium falciparum

- |   |                                       |
|---|---------------------------------------|
| a) causes enlargement of the infected red blood cells | b) causes cerebral malaria            |
| c) has a hypnozoite stage in the liver                | d) has rectangular shaped gametocytes |

(vii) Select the correct statement with respect to Chagas' disease

- |   |   |
|---|---|
| a) It is caused by Trypanosoma brucei complex | b) Human acquires the disease via the bites of infected sandflies |
|---|---|

- c) It causes megasyndrome in patients with prolonged illness
- (viii) Select the true statement with respect to intestinal nematodes of human
- a) *Enterobius vermicularis* is not a soil-transmitted helminth
- b) *Strongyloides stercoralis* is the smallest intestinal nematode
- c) *Capillaria philippinensis* lives in the lumen of the small intestine
- d) *Trichinella spiralis* is oviparous
- (ix) Select the true statement with respect to human blood fluke
- a) It is the only fluke in which the sexes are separated
- b) It requires a second intermediate host to complete its life cycle
- c) The infective stage to human is metacercaria
- d) Its egg is operculated
- (x) Choose the primary symptom of Amoebiasis
- a) Headache and cold
- b) Dysentery
- c) Fever
- d) Severe cold
- (xi) Select the correct definition of endoparasite
- a) Lives on the surface of the host organism
- b) Lives in the body cavities of the host organism
- c) Lives under the body cavity of the host organism
- d) Lives side of the body cavity of the host organism
- (xii) Identify the causative agent of Malaria
- a) *Entamoeba histolytica*
- b) *Leishmania*
- c) *Clostridium*
- d) *Plasmodium*
- (xiii) Choose of the following that is not expected to be found in a level 1 Biosafety lab
- a) Non pathogenic *E.coli*
- b) *S.cerevesiae*
- c) West Nile virus
- d) canine hepatitis
- (xiv) Select the incorrect statements regarding *Ascaris lumbricoides*
- a) *Ascaris lumbricoides* is one of the largest nematode
- b) *Ascaris lumbricoides* can cause pneumonia
- c) Both dogs and cats are intermediate hosts of *Ascaris lumbricoides*
- d) A lumbricoides is transmitted by ingestion of eggs
- (xv) Select the incorrect statement regarding kala-azar
- a) Kala-azar is caused by *Leishmania donovani*
- b) kala-azar is transmitted by the bite of male sandflies
- c) Kala-azar occurs primarily in rural Latin America
- d) Kala-azar can be diagnosed by finding amastigotes in bone marrow

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write about what should a person do if he/she swallow concentrated acid (3)
  3. Write 3 methods for treating a cut injury caused by broken glass (3)
  4. Explain the diagnostic methods of Filariasis (3)
  5. Write about the procedure of preparation of blood smear of a patient who is suspected to be affected by malaria (3)
  6. Categorize wastes based on their method of disposal (3)
- OR**
- How do you plan the disposal of Anatomical and infectious wastes in specific colour coded bags (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write in detail about the preservatives used in stool sample preparation (5)
8. Analyze the role of phenol being used as a disinfectant and give example of 3 phenolic compounds (5)
9. Evaluate the efficiency of RT-PCR technique for detection of malarial antigens (5)
10. Distinguish between anopheles and aedes mosquito by morphological features (5)
11. Describe the life cycle of Entamoeba Histolytica in disease development (5)
12. What may be the clinical conditions that lead to increase or decrease of pH in stool (5)

**OR**

Write about the different odours that are found in stool and correlate with chemicals imparting the odour (5)

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