



# BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – B.Sc.(MLT)-2019/B.Sc.(MLT)-2020

Course Name – Medical Parasitology & Entomology

Course Code - BMLT501

( Semester V )

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) State the correct definition of parasite:
- |  |  |
|--|--|
| a) A micro-organism that invades host cells and replicates inside them   | b) An organism that lives in or on another living body to benefit the host |
| c) An organism that lives in or on another living body to benefit itself | d) An organism that lives in or on another living body without any benefit |
- (ii) State 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 |
- (iii) Identify the causative agent of Malaria
- |                          |               |
|--------------------------|---------------|
| a) Entamoeba Histolytica | b) Leishmania |
| c) Clostridium           | d) Plasmodium |
- (iv) What is the location of sexual life cycle of plasmodium
- |                            |                                       |
|----------------------------|---------------------------------------|
| a) The gut of the mosquito | b) RBC                                |
| c) Liver tissue            | d) The salivary gland of the mosquito |
- (v) All the statements regarding Ascaris lumbricoides is correct except:
- |  |   |
|--|---|
| 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 |
- (vi) Example of a drug used to prevent Malaria is
- |                        |                |
|------------------------|----------------|
| a) Mebendazole         | b) Chloroquine |
| c) Inactivated vaccine | d) Zinc table  |
- (vii) The following is true 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    | d) The most common clinical manifestation is                      |

- prolonged illness Winterbottoms sign
- (viii) The following is true 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 option regarding *Schistosoma* spp.:
- a) The diagnostic stage is the egg  
 b) The infective stage to human is miracidium  
 c) Albendazole is the drug of choice for the treatment of its infection  
 d) Its infection can be prevented by eating cooked meat
- (x) Select the one which causes cutaneous larva migrans :
- a) *Ancylostoma caninum*  
 b) *Ancylostoma duodenale*  
 c) *Strongyloides stercoralis*  
 d) *Necator americanus*
- (xi) Choose the parasitic disease that is responsible for intracerebral lesions in AIDS patients:
- a) Amoebiasis  
 b) Cystoisosporiasis  
 c) Toxoplasmosis  
 d) Cryptosporidiosis
- (xii) Choose the parasite that can cause ocular lesion:
- a) *Naegleria fowleri*  
 b) *Toxocara canis*  
 c) *Wuchereria bancrofti*  
 d) others
- (xiii) Report the correct option with respect to Blackwater fever
- a) occurs in patients infected with *Plasmodium falciparum*  
 b) occurs in patients infected with quartan malaria  
 c) is a serious syndrome in patients with G6PD deficiency  
 d) Other
- (xiv) Write the name of the parasite that can infect human muscle:
- a) *Toxoplasma gondii*  
 b) *Wuchereria bancrofti*  
 c) *Taenia saginata*  
 d) *Clonorchis sinensis*
- (xv) Identify the clinical feature of late lymphatic filariasis from the following:
- a) Haemoptysis  
 b) Haematemesis  
 c) Hydrocele  
 d) Haematuria

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write about the procedure of iodine preparation for stool examination (3)
  3. Comment on the nocturnal periodicity of *Wuchereria bancrofti* (3)
  4. Explain the principle of QBC technique as required for the diagnosis of Malaria (3)
  5. Establish the difference between thin and thick smear of blood as required in diagnosis of Malaria (3)
  6. Distinguish between the gametocytes of *P.vivax* and *P. falciparum* (3)
- OR**
- Distinguish between the structures of *Microfilariae* and adult worm of *Wuchereria bancrofti* (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Compare and contrast between RT-PCR & pLDH technique for detection of malarial parasite (5)
8. Define Endoparasite and Ectoparasite with suitable examples (5)
9. Describe the life cycle of *Ascaris lumbricoides* (5)
10. Explain the three stages experienced by a patient during malarial fever (5)
11. Illustrate the zinc sulphate method for stool examination (5)
12. Explain the detailed process and observation of the QBC technique required for the (5)

identification of malaria

**OR**

Explain the process of preparation of thick & thin blood smear for detection of malarial parasite (5)

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