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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) Identify the causative agent of Secretory diarrhea
  - a) Antibiotic administration
  - b) Lactose intolerance
  - c) Celiac sprue
  - d) Vibrio cholerae
- (ii) Microscopic examination of stools mixed with Sudan III stain, glacial acetic acid, and then heated will show small orange-red droplets indicating
  - a) Soaps
  - b) Fatty acids and soaps
  - c) Fatty acids and neutral fats
  - d) Fatty acids, soaps, and neutral fats
- (iii) Choose the parasite that is responsible for malignant tertian malaria
  - a) P.vivax
  - b) P.falciparum
  - c) P.knowlesi
  - d) P.ovale
- (iv) The Parasite which lives outside the body of the host is
  - a) Ectoparasite
  - b) Endoparasite
  - c) Surface parasite
  - d) External Parasite
- (v) Choose the correct full form of PPE
  - a) Personal protective enhancement
  - b) Personal protective equipment
  - c) Protective physical equipment
  - d) Possible protective equipment
- (vi) Choose the option that correctly denotes a dead microbe
  - a) The cell is viable but not culturable
  - b) The cell wall lyses
  - c) It does not grow or reproduce in a medium that supports growth
  - d) All of these
- (vii) Choose the correct full form of MSDS
  - a) Material sequence data sequence
  - b) Maximum safety data system
  - c) Material safety data sheet
  - d) Minimum security Database system
- (viii) The study of ..... Is called parasitology
  - a) Parasites
  - b) Entomology
  - c) Insects
  - d) Arthropods

- (ix) Select 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
- (x) Choose the primary symptom of Amoebiasis
- a) Headache and cold  
 b) Dysentery  
 c) Fever  
 d) Severe cold
- (xi) Identify 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
- (xii) Choose the correct statement regarding hookworm infection
- a) Hookworm infection can cause pneumonia  
 b) Hookworm infection is acquired by humans when filariform larvae penetrate the skin  
 c) Hookworm infection is caused by *Necator americanus*  
 d) Hookworm infection can be diagnosed by finding the trophozoite in the stool
- (xiii) Choose the organism that is not considered to be a threat for biosafety
- a) *Bacillus anthracis*  
 b) Smallpox virus  
 c) *Vibrio cholerae*  
 d) *Bacillus subtilis*
- (xiv) Select the incorrect statement regarding *Trichomonas vaginalis*
- a) *T. vaginalis* is transmitted sexually  
 b) *T. vaginalis* can be diagnosed by visualizing the trophozoite  
 c) *T. vaginalis* can be treated effectively with metronidazole  
 d) *T. vaginalis* causes bloody diarrhea
- (xv) Select the incorrect statements regarding *Giardia lamblia*
- a) *G. lamblia* has both a trophozoite and cyst stage in its life cycle  
 b) *G. lamblia* is transmitted by the fecal-oral route from both human and animal sources  
 c) *G. lamblia* causes hemolytic anemia  
 d) *G. lamblia* can be diagnosed by the string test

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write 3 methods of treating burn injury (3)
3. Discuss what physical aspects of stool need to be examined (3)
4. Give 3 examples of anatomical wastes (3)
5. Illustrate the signs and symptoms to identify the progression of Leishmaniasis (3)
6. Critically analyze the effectivity of ELISA for detecting HIV (3)

OR

- Compare & contrast between direct and indirect ELISA and comment on their accuracy (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Illustrate the steps of hanging drop test and comment on its clinical significance (5)
8. Explain the detailed process and observation of the QBC technique required for the identification of malaria (5)
9. Analyze a L-J chart & explain the errors that can be detected through it (5)
10. Explain the process of Leishmann's staining for the detection of malarial parasite (5)
11. Discuss about the biological calibration method of autoclave (5)
12. Write the R4s and 41s rule and conclude what evidence can you get from the subsequent result (5)

OR

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