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BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – B.Sc.(MLT)-2020/B.Sc.(MLT)-2021
Course Name – Immunology & Bacterial Serology
Course Code - BMLT401
(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) In Serological ELISA Method, identify specific Antibody is coated on
- | | |
|----------------------|-------------------------|
| a) Inoculation plate | b) Microtitration plate |
| c) Radioisotopes | d) None of these |
- (ii) Identify the Non-specific defence mechanism of the body
- | | |
|---------------------|----------------------|
| a) Natural Immunity | b) Adaptive Immunity |
| c) Hypersensitivity | d) Immunosuppression |
- (iii) Which type of Immunity is acquired by direct exposure of an Antigen ?
- | | |
|---------------------|------------------------|
| a) Active Immunity | b) Natural Immunity |
| c) Passive Immunity | d) Individual Immunity |
- (iv) Select the Primary lymphoid organs in the Human Immune system .
- | | |
|---------------|-----------------|
| a) Thymus | b) Bone Marrow |
| c) Lymphnodes | d) Both A and B |
- (v) Cardioliipin Antigen is applied for the detection of
- | | |
|---------------|--------------|
| a) WIDAL Test | b) VDRL Test |
| c) CFT Test | d) CRP Test |
- (vi) Low Molecular weight Antigens are called
- | | |
|--------------|----------------------|
| a) H Antigen | b) Australia Antigen |
| c) Haptens | d) T Antigen |
- (vii) Inherited Antigens which are found in some but not in all members of a species is called
- | | |
|-----------------|-----------------------------|
| a) Autoantigens | b) Species specific Antigen |
| c) Isoantigens | d) Generic Antigen |
- (viii) AIDS can be converted by all the following routes except,
- | | |
|----------------------------|------------------------|
| a) Infected mother to baby | b) Contaminated needle |
| c) Insect bite | d) Sexual contact |

- (ix) Identify the Live Vaccine
 a) Oral Polio Vaccine
 c) HbsAg Vaccine
 b) Rabies Vaccine
 d) Salk Polio Vaccine
- (x) Identify the Flageller Antigen of Salmonella
 a) O Antigen
 c) H Antigen
 b) Vi Antigen
 d) F Antigen
- (xi) Which is NOT an External Defence System of the body?
 a) Mucous Membrane
 c) Skin
 b) Lysozyme
 d) Body Secretions
- (xii) Choose the correct name of VDRL Test
 a) Veneral Disease Research Laboratory
 c) Vaneral Disease Research Laboratory
 b) Venereal Disease Research Laboratory
 d) Venerel Disease Research Laboratory
- (xiii) Select the one that is the first recombinant antigen vaccine approved for human use
 a) Hepatitis B
 c) Var vaccine
 b) HIB Vaccine
 d) DPT
- (xiv) Which serological test is used for identification of Enterovirus ?
 a) Complement fixation test
 c) Neutralization test
 b) ELISA
 d) All of these
- (xv) Which type of vaccine is used for Rabies virus ?
 a) Killed vaccine
 c) Recombinant DNA Vaccine
 b) Live attenuated vaccine
 d) None of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write the principle of Rotary shaker for VDRL test. (3)
3. Name the techniques of Precipitation and Flocculation reaction. (3)
4. List the requirements for WIDAL Test. Interpret the result . (3)
5. Explain the semi-quantitative test for WIDAL. (3)
6. Analyze the utility of Sheep RBC while interpreting the result of CFT. (3)

OR

Explain Complement. Write the significance of it in Serological Tests. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. An antibody reacts with an antigen and identify the consequences of the reaction . (5)
8. Describe the Complement Fixation Test in details. (5)
9. Explain Flocculation Reaction with Clinical applications. Comment on the Mechanism behind Flocculation Reaction. (5)
10. Classify types of Antigen - Antibody reactions. List different kind of Ag-Ab reactions mentioning their Clinical application. (5)
11. Write about Agglutination Reaction. Discuss about a Clinical application of Agglutination reaction in details. (5)
12. Explain how an antibody reacts with an antigen and identify the consequences of the reaction (5)

OR

Explain Agglutination Reaction with Clinical applications. Comment on the Mechanism behind Agglutination Reaction. (5)
