



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 poliomyelitis, which type of Vaccine is used ?
 - a) Live attenuated vaccine
 - b) Killed vaccine
 - c) Both A and B
 - d) None of these
- (ii) Lower level immunity due to some defects in the immune mechanism can be selected as
 - a) Natural Immunity
 - b) Adaptive Immunity
 - c) Immunosuppression
 - d) Grafting
- (iii) Select, Antibody-mediated Immunity is produced by
 - a) Neutrophil
 - b) T Lymphocytes
 - c) B Lymphocytes
 - d) All of these
- (iv) The Lambda and Kappa are which type of chains in Immunoglobulin molecule.
 - a) Light Chain
 - b) Heavy Chain
 - c) Combining Chain
 - d) None of these
- (v) Select the Immunoglobulin having largest molecular weight
 - a) IgM
 - b) IgG
 - c) IgD
 - d) IgA
- (vi) Choose the secretory Immunoglobulin
 - a) IgD
 - b) IgM
 - c) IgA
 - d) IgG
- (vii) Amboceptor is associated with
 - a) C-reactive Protein
 - b) Widal Test
 - c) Complement Fixation Test
 - d) Anti-Streptolysin O Test
- (viii) RIA uses Radiolotopes to detect
 - a) Antigen
 - b) Antibody
 - c) Both A & B
 - d) None of these

- (ix) Radioimmunoassay can be used for the detection of
- a) IgE
c) Drugs
- b) Autoimmune markers
d) All of the above
- (x) An example for an Application of Precipitation reaction is
- a) Coomb's Test
c) Widal test
- b) HCG
d) VDRL Test
- (xi) Immunoglobulins constitute of how much percentage of total Serum proteins ?
- a) 10-15%
c) 20-25%
- b) 15-20%
d) 25-30%
- (xii) Select the Immunoglobulin that protects the Body fluids
- a) IgM
c) IgD
- b) IgG
d) IgE
- (xiii) Two unequal pairs of Polypeptide chains in immunoglobulin molecule is held together by
- a) Disulphide bond
c) Trisulphide bond
- b) Peptide bond
d) None of these
- (xiv) Somatic Antigen can be recognized as
- a) O Antigen
c) H Antigen
- b) Vi Antigen
d) F Antigen
- (xv) WIDAL Test can be performed as
- a) Qualitative Test
c) Quantitative Test
- b) Semi-Quantitative Test
d) All of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Summarize types of Immunodiffusion. (3)
3. Write the full form of CFT. Enumerate the applications of CFT. (3)
4. Classify the hypersensitivity reactions based on the time taken by them to develop. (3)
5. What is an Agglutination reaction? Name different types of Agglutination tests. (3)
6. Classify Autoimmune diseases based on the site of involvement and nature of lesions. (3)

OR

Explain what happens when our body encounters an antigen that is recognized as non self. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Comment on the reagent preparation for VDRL Test. What is the Principle and requirements of VDRL Test. (5)
8. What is CRP? What is the principle behind it. Write about the conditions which makes CRP test imperative. (5)
9. What do you think about the Clinical importance of ASO Test ? Explain the mechanism connected to ASO Test. (5)
10. Create a chart and compare between different kinds of Agglutination Reaction with each's Clinical application. (5)
11. Write the full name of ELISA. What is the general principle of ELISA. List the kinds of ELISA with Clinical applications. (5)
12. Develop a chart, compare and contrast between VDRL and RPR with principle, procedure, mechanism involved and clinical applications. (5)

OR

What is CRP? Write the normal ranges of CRP. A patient is having a CRP of 30mg/l; explain the conditions may experienced by the patient. (5)