



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Optomerty-2021/B.Optomerty-2022/B.Optomerty-2023

Course Name – Ocular Microbiology and Pathology

Course Code - BOPTOE305A

(Semester III)

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) Zeihl Neelsen Staining helps to interpret
 - a) Mycobacterium tuberculosis
 - b) Mycobacterium leprae
 - c) Nocardia
 - d) All of these
- (ii) Identify the Gram negative diplococci
 - a) Neisseria gonorrhoea
 - b) Proteus mirabilis
 - c) Klebsiella pneumoniae
 - d) Escherichia coli
- (iii) Identify the Gram positive bacilli
 - a) Streptococcus
 - b) Staphylococcus
 - c) Mycobacterium tuberculosis
 - d) Escherichia coli
- (iv) BACTEC System is used to visualize rapid growth of
 - a) Mycobacterium tuberculosis
 - b) Treponema pallidum
 - c) Proteus mirabilis
 - d) None of these
- (v) Immunoglobulin that develops a protection to the Body fluids
 - a) IgM
 - b) IgG
 - c) IgD
 - d) IgE
- (vi) Select the option that explains the correct cause of Adaptive immunity
 - a) Infection
 - b) Administration of antibodies
 - c) Administration of lymphocytes
 - d) Active immunization
- (vii) Identify the cause of Anemia
 - a) Iron deficiency
 - b) Acute blood loss
 - c) Bone marrow depression
 - d) All of these
- (viii) Antibody present in Colostrum is
 - a) IgG
 - b) IgA
 - c) IgD
 - d) IgM
- (ix) Microorganisms which are harmful to their host are known as
 - a) Commensals
 - b) Pathogens

- c) Vectors
(x) Fimbriae is an organ associated with
a) Adhesion
c) Reproduction
(xi) Skin Biopsy is considered as sample for
a) Superficial Mycoses
c) Systemic Mycoses
(xii) Which part of the bacterial cell wall is responsible for retaining the crystal violet-iodine complex in Gram-positive bacteria?
a) Lipid bilayer
c) Peptidoglycan layer
(xiii) Choose the abnormal urine value in 'polyuria'
a) Abnormal increase in urine Volume > 2500 ml/24 hours
c) Decrease in urine volume < 500 ml/24 hours
(xiv) Acid-fast staining is commonly used in the diagnosis of which infectious disease?
a) Influenza
c) Staphylococcal infection
(xv) Identify the most Immunogenic among the following
a) Lipids
c) Monosaccharides
- d) None of these
b) Locomotion
d) Protein synthesis
b) Suncutaneous Mycoses
d) All of these
b) Outer membrane
d) Capsule
b) Abnormal increase in urine volume > 1500 ml/24 hours
d) Abnormal increase in urine Volume < 2500 ml/24 hours
b) Tuberculosis
d) Streptococcal pharyngitis
b) Proteins
d) Polysaccharides

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write down the mechanism of Gram Staining. (3)
3. Give example of a Viral infection of eye. Mention how it is developed . (3)
4. Discuss about Adaptive Immunity. (3)
5. Express the causes, and clinical manifestations of ocular parasitic infections? (3)
6. Draw a flowchart to represent different types of Immunity. (3)

OR

Illustrate Zone phenomenon with suitable diagram. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write the characteristics of Bacterial cell wall. List the functions of Bacterial cell wall. (5)
8. Define Sterilization. Describe in details the various methods of Sterilization. (5)
9. What is Inflammation? What are the important features of inflammations of the eye? (5)
10. Compare and contrast between Innate and adaptive immunity with examples and cells involved (5)
11. With the help of suitable illustrations describe the structure of Antibodies. (5)
12. Define antigen-antibody reaction. List various serological methods to demonstrate antigen-antibody reaction in vitro along with examples. (5)

OR

"All Immunogens are Antigen but all Antigens are not Immunogen"- Conclude Antigen and Immunogen and justify the phrase. (5)
