

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2023  
(Second Semester)

Branch –BIOCHEMISTRY

MICROBIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Identify the chemical present in the gram positive bacterial cell wall.  
(i) Cellulose (ii) Lipid bilayer  
(iii) Peptidoglycans (iv) Collagen
2. The Blue Green Algae is called as.  
(i) Cyanobacteria (ii) Xanthophyceae  
(iii) Rhodophyceae (iv) Pheophyceae
3. Name the prevention vaccine of Tuberculosis  
(i) Tetracycline (ii) Penicillin  
(iii) DPT (iv) BCG
4. Name the protein coat surrounded the nucleic acid of virus.  
(i) Capsomere (ii) Capsid  
(iii) Coliphage (iv) Prion
5. What is activated sludge?  
(i) Distilled bacteria (ii) Fermented bacteria  
(iii) Sediment bacterial flocs (iv) Fungi

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. (a) Explain the Principle and use of fluorescent microscope.  
OR  
(b) Explain the bacterial growth curve.
7. (a) Narrate the structure and function of cyanobacteria.  
OR  
(b) Outline the life cycle of Yeasts.
8. (a) Write a note on water borne diseases of Infectious hepatitis.  
OR  
(b) Narrate the aetiology and symptoms of Rabies.
9. (a) Describe the lysogenic and lytic pathway of T4 phages.  
OR  
(b) Explain the mechanism of physical mutagenesis.

Cont...

10. (a) Write short notes on Mycorrhizae.  
OR  
(b) Explain the role of microbes in waste water treatments.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. (a) Discuss about the Principle and application of light microscope.  
OR  
(b) Summarise the physical and chemical methods of sterilization techniques.
12. (a) Highlight the structure and functions of bacterial cell wall.  
OR  
(b) Enumerate the economic importance of Algae.
13. (a) Discuss the host- parasite interactions.  
OR  
(b) Illustrate the symptoms and prevention of TB.
14. (a) Describe the mutagenesis and its types.  
OR  
(b) Enumerate the animal viruses SV40 and its importance.
15. (a) Elucidate the Nitrogen cycle.  
OR  
(b) Outline the steps involved in the Penicillin Production.

Z-Z-Z

END