

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – ZOOLOGY

MICROBIOLOGY AND IMMUNOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Flagella in bacteria enable them to
(a) Reproduce (b) Locomotion
(c) Thrive in nutrient agar (d) Adhere to tissue surfaces
2. The undesirable change in a food that makes it unsafe for human consumption is referred to as
a) Food decay b) Food spoilage
c) Food loss d) Food preservation
3. Which of the following is used as a bio fertilizer for soybean crop?
(a) *Nostoc* (b) *Azospirillum*
(c) *Rhizobium* (d) *Azotobacter*
4. Which of the following immunity is present from our birth?
(a) Innate Immunity (b) Active immunity
(c) Passive immunity (d) Acquired immunity
5. Which of the following immunoglobulin makes the largest percentage in breast milk?
(a) IgM (b) IgD (c) IgG (d) IgA.

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a) What is Microbiology? Explain the scope of microbiology.
OR
b) Describe the salient features of Bacteria.
7. a) Analyse the role of microbes in fermentation of food.
OR
b) Write an account of biochemical changes in food spoilages.
8. a) Give an account of Rhizobium and its field application.
OR
b) Point out the significance of waste water treatment.
9. a) Write a brief note on bone marrow.
OR
b) Discuss about the cell mediated immunity.
10. a) Write short notes on Haptens.
OR
b) Give a brief note on immunoprophylaxis.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a) Describe the structure and reproduction of Bacteriophages.
OR
b) Narrate the types of culture medium.
12. a) Write a detailed account of methods of food preservation.
OR
b) Discuss the production of yeast and its application in food industry.
13. a) Write a brief note on *Bacillus thuringiensis*.
OR
b) Discuss about the Production of ethanol.
14. a) Write an account of innate immunity.
OR
b) Describe the secondary lymphoid organs with suitable illustrations.
15. a) Discuss about the Hypersensitivity.
OR
b) Write an account of transplantation immunology.

Z-Z-Z END