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22ZOU412

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(Fourth Semester)

Branch – **ZOOLOGY**

MICROBIOLOGY & IMMUNOLOGY

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. Which bacteria appears purple-violet colour after staining?
   a) Gram-positive
   b) Gram-negative
   c) Both Gram-positive and Gram-negative
   d) Neither Gram-positive nor Gram-negative

2. What is the most common food preservation methods?
   a) Freezing b) Fermentation c) Heating d) Freeze drying.

3. Anaerobic respiration is the cellular type of respiration, it is also called as _____
   a) Fermentation b) Respiration
   c) Aerobic respiration d) None of these.

4. B-cells and T-cells are two types of cells involved in _____.
   a) Innate Immunity b) Active immunity
   c) Passive immunity d) Acquired immunity

5. What is a graft between different members of the same species termed?
   a) Auto graft b) Isograft c) Xenograft d) Allograft.

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a) List out the salient features of Fungi.
OR
b) Describe the Batch culture techniques.

7 a) Write a brief note on Basic concept of Probiotics.
OR
b) Give a brief account of staphylococcus poisoning.

8 a) Give an account of VAM fungi.
OR
b) Briefly explain the production of penicillin.

9 a) Write a brief note on Lymph node.
OR
b) Discuss about the Humoral mediated immunity.

Cont...

10 a) Write short notes on Antigens

OR

b) Give a brief note on Immunoglobulin G.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a) Describe the structure and reproduction of Bacteria.

OR

b) Explain the types of Staining used for observation of Bacteria.

12 a) Write a detailed account of food spoilage.

OR

b) Discuss the Microbial examination of milk.

13 a) Write a brief note on Waste water treatment.

OR

b) Discuss about the Mass cultivation of Rhizobium and its application.

14 a) Give an account of Acquired immunity.

OR

b) Describe the Primary lymphoid organs.

15 a) Discuss about the immunoprophylaxis.

OR

b) Write an account of transplantation immunology.

Z-Z-Z END