

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – ZOOLOGY

MICROBIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which of these bacterial components is least likely to contain useful antigens?
(i) Cell wall (ii) Flagella
(iii) Ribosomes (iv) Capsule
- 2 This causes Syphilis
(i) *Entamoeba histolytica* (ii) *Neisseria gonorrhoeae*
(iii) *Plasmodium* (iv) *Treponema pallidum*
- 3 Diarrhoea is not caused by
(i) *Shigella dysenteriae* (ii) *Streptococcus pyogenes*
(iii) *Clostridium difficile* (iv) *Salmonella enteritidis*
- 4 The simplest amino acid is
(i) Glycine (ii) Alanine
(iii) Asparagine (iv) Tyrosine
- 5 Which of the following is required for the action of the nitrogenase enzyme?
(i) Light (ii) High input of energy
(iii) Super oxygen radicals (iv) Mn^{2+}

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain the any two methods of sterilization techniques.
OR
b Write a note on general classification of microbes.
- 7 a Discuss microbial contamination and spoilage of fish.
OR
b Demonstrate the process of Kefir milk preparation.
- 8 a How do you control the microorganisms? Write the importance with an example.
OR
b Comment on Hepatitis B virus.
- 9 a Explain the Immobilization of enzymes.
OR
b Write short notes on production of antibiotics.
- 10 a Comment on bacterial insecticides.
OR
b Elucidate the microbial degradation of Xenobiotics.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Elaborate the morphology of bacterial cell and notes on bacterial chromosomes.
OR
b Discuss on the Indian Microbiology institution role in Healthcare.
- 12 a Define Pasteurization and explain its significance in microbiology.
OR
b Give a detailed account on Botulism and its causatives.
- 13 a Describe air borne disease with any two examples.
OR
b Which microorganism do causes Leprosy? Explain.
- 14 a Demonstrate the production process of alcohol.
OR
b Explain the production and application of microbial enzymes.
- 15 a Describe the role of Ti plasmid in agriculture.
OR
b Summarize about water pollution management used in municipal plants.

Z-Z-Z

END