

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(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. Which part of the compound microscope helps in gathering and focusing light rays on the specimen to be viewed?
(i) Eyepiece lens (ii) Objective lens
(iii) Condenser lens (iv) Magnifying lens
2. What is a cluster of polar flagella called?
(i) Petritrichous ((ii) Monotrichous
(iii) Amphitrichous (iv) Lophotrichous
3. Which of the following is true for the tetanus vaccine?
(i) Every traveller should be up to date.
(ii) No one should have more than 6 shots in their lifetime.
(iii) Reactions are less likely to occur the more you have.
(iv) A tetanus vaccine should only be given to highly contaminated wounds regardless of vaccine status
4. Which one of the following enzyme is present in the retrovirus?
(i) DNase (ii) Protease
(iii) Reverse Transcriptase (iv) RNase
5. Which of the following material is preferable for the construction of small-scale fermenter?
(i) Quartz (ii) Glass
(iii) Iron steel (iv) Wood

SECTION - B (15 Marks)

Answer ALL Questions

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

- 6 a) Point out principle and uses of light microscope.
(OR)
b) Write short note on growth curve.
- 7 a) List out important characteristics of fungi
(OR)
b) Write a economic importance of algae.
- 8 a) Describe the symptoms and prevention of AIDS.
(OR)
b) Compare and contrast between exo and endotoxin.
- 9 a) What do you mean by serial dilution? Explain.
(OR)
b) Describe the various types of mutants.

Cont...

10. a) Illustrate about nitrogen cycle.
(OR)
b) Give an account on phosphorous cycle.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a) Describe the principle, instrumentation and applications of electron microscope .
(OR)

b) Discuss the mechanism of sterilization technique.

12. a) Determination of Whittaker five kingdom classification of bacteria.

(OR)

b) Evaluate the life cycles of yeast.

13. a) Explain the symptoms and prevention of TB and chicken box.

(OR)

b) Discuss the immunization and control measures of Anthrax.

14. a) Enumerate the structural and classifications of viruses .

(OR)

b) Evaluate the concept of T4 life cycle.

15. a) Elucidate the waste water treatment using microbes.

(OR)

b) Elaborately discuss about penicillin production.

Z-Z-Z END