

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – MICROBIOLOGY

FUNDAMENTALS OF MICROBIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Who discovered vaccination for small pox

(i) Alexander Flemming	(ii) Louis Pasteur
(iii) Edward Jenner	(iv) Robert Koch
2. Which organelle is involved in protein synthesis ?

i) Ribosomes	(ii) Inclusion Bodies
(iii) Nucleoid	(iv) Cytoplasmic matrix
3. Name the association of algae with fungi

i) Benthic forms	(ii) Lichens
(iii) Nesutonic forms	(iv) Aquatic forms
4. Mention the name of the spore which is enclosed by the bag like structure present at the hyphal tip

i) Conidiophores	(ii) Blastospore
(iii) Sporangiospore	(iv) Arthrospore
5. What is the name of the actively feeding stage of the Protozoans?

i) Cyst stage	(ii) Trophozoite stage
(iii) Precystic stage	(iv) Metacystic stage

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a) Summarize the contributions of Edward Jenner.
(Or)
b) Explain the contributions of Alexander Flemming.
7. a) Describe the structure of outer membrane with a suitable diagram.
(Or)
b) Show the difference between gram positive and negative with diagram.
8. a) Write a note on SCP.
(Or)
b) Discuss the algal thallus structure.

Cont...

9.a) Discuss the various asexual methods of fungal reproduction.

(Or)

b) Summarize the characteristic features of the class Zygomycetes.

10 a) Explain the different modes of nutrition in protozoans

(Or)

b) Describe the morphology of protozoans with a neat sketch.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a) Summarise the various contributions of Louis Pasteur in the field of microbiology.

(Or)

b) Discuss the contributions of Robert Koch and highlight Koch's postulates.

12. a) Explain the structure of plasma membrane and highlight its function.

(Or)

b) Describe the Gram positive cell wall structure with a neat diagram.

13. a) Summarise the various sexual and asexual methods of reproduction in algae.

(Or)

b) Explain the economic and agricultural importance of algae.

14. a) Summarise the various economic and agricultural importance of Fungi.

(Or)

b) Discuss the characteristic features of Basidiomycetes.

15. a) Discuss the conjugation process In *Paramecium caudatum*

(Or)

b) Discuss the classification of Protozoans.

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END