

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2019
(First Semester)

Branch - Microbiology

FUNDAMENTALS OF MICROBIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 Germ Theory of Disease was given by ——.....
(i) Pasteur (ii) Stanley Cohen
(iii) Robert Koch (iv) Whittaker
- 2 Diphtheria antitoxin was discovered by——
(i) Paul Ehrlich (ii) Edward Jenner
(iii) Elie Metchnikoff (iv) Emil von Behring
- 3 Polyphosphate granules, Cyanophycin granules, Glycogen and poly - p hydroxyl butyrate granules are----- of cytoplasmic matrix in prokaryotes.
(i) osmoprotectants (ii) capsules
(iii) inclusion bodies (iv) vacuoles
- 4 Glutamine, glycine, inositol, sorbitol, and taurine are examples of-----
(i) cyanophycin granules (ii) inclusion bodies
(iii) cell wall components (iv) osmolytes
- 5 -----is the most common method of reproduction in algae
(i) fragmentation (ii) binary fission
(iii) budding (iv) sexual reproduction
- 6 Spirulina contains----- amount of protein content.
(i) 40-60 % dry weight (ii) 50-70 % dry weight
(iii) 50-90 % dry weight (iv) 70-90 % dry weight
- 7 Fungi Imperfecti is-----
(i) Ascomycetes (ii) Basidiomycetes
(iii) Zygomycetes (iv) Deuteromycetes
- 8 ----- is the common fungi used in industrial enzyme production
(i) Aspergillus (ii) penicillium
(iii) Fusarium (iv) Rhizopus
- 9 Entamoeba Comes under the class.....
(i) Ciliata (ii) Mastigophora
(iii) Teleospora (iv) Myxosporidia
- 10 Without the rejuvenating effects of autogamy or conjugation a -.....
ages and dies.
(i) Amoeba (ii) Taenia
(iii) Trichomonas (iv) Paramecium

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Explain the features of Spontaneous Generation Theory
OR
b Outline the contributions of Alexander Fleming and Selman Waksman
- 12 a How are bacteria differentiated based on cell wall characteristic Explain.
OR
b Explain the cell membrane organization of bacterial cell. Add a note on Flagella and their motility pattern
- 13 a Explain the features of distribution and nutrition of algae
OR
b Explain the methods of reproduction in Algae
- 14 a Detail an account on fungal reproduction
OR
b Illustrate the life cycle of Rhizopus stolonifer
- 15 a Discuss the classification of Protozoans
OR
b How do protozonas reproduce.Explain with illustrations

SECTION - C (30 Marks!)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Describe the contributions made by Louis Pasteur and Robert Koch?
- 17 Compare and contrast the cellular morphology of prokaryotic and Eukaryotic cells ?
- 18 Discuss about the commercial products derived from Algae?
- 19 Detail an account on classification of Fungi with suitable examples?
- 20 Explain the sexual reproduction in Paramecium caudatum

Z-Z-Z

END