

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 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 (10x1 = 10)

- 1 Which Scientists first disproved spontaneous generation by showing that maggots only appear on decaying meat that has been exposed to flies?
(i) Francesco Redi (ii) Joseph Lister
(iii) Louis Pasteur (iv) Robert Koch
- 2 Which of the following bacteria was not discovered by Robert Koch?
(i) Bacillus anthracis (ii) Mycobacterium tuberculosis
(iii) Salmonella typhi (iv) Vibrio cholerae
- 3 Indicate pseudo peptidoglycan is a characteristic of the cell wall of ____ .
(i) Eukaryotic cells (ii) Bacterial prokaryotic cells
(iii) Archaeal prokaryotic cells (iv) both (ii) and (iii)
- 4 Prokaryotic cell does not possess ____ .
(i) cell wall (ii) nuclear membrane
(iii) cytoplasm (iv) plasma membrane
- 5 Which of the following is present in blue green algae?
(i) Starch (ii) Cyanophacean granules
(iii) Polysaccharides (iv) Floridian starch
- 6 State the non motile, greatly thickened asexual spores of algae?
(i) Hypnospores (ii) Macrospores
(iii) Aplanaspores (iv) Microzoospores
- 7 What is the major distinguishing character of fungi?
(i) Gaining nutrition through ingestion (ii) Being sedentary
(iii) Being prokaryote (iv) Absorbing dissolved nutrients
- 8 In which spores meiosis takes place?
(i) Zoospores (ii) Zygo spores
(iii) Ascospores (iv) Basidiospores
- 9 The total area of each of the two daughter amoeba soon after binary fission of the mature amoeba is ____ .
(i) same as that of the parent (ii) equal half of each parent
(iii) slightly less than half of each parent (iv) slightly more than half of each parent
- 10 Hav infusion method is used for culture of ____ .
(i) Paramecium (ii) Euglena
(iii) Balantidium (iv) none of these

SECTION - B (35 Marks)

Answer **ALL** Questions

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

- 11 a Describe in brief about Koch postulates.
OR
b Explain in short about contribution of Alexander Flemming.
- 12 a Give outline sketch about cytoplasmic matrix.
OR
b Narrate in brief about mechanism of bacterial motility.
- 13 a Show ultra structure of algal cell with neat sketch.
OR
b Summarize in detailed about importance of algae.
- 14 a State the general characters of Ascomycetes.
OR
b Describe in detailed about agricultural importance of fungi.
- 15 a Give your organized view on protozoan nutrition.
OR
b Bring out binary fission of protozoa with neat sketch.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Briefly summarize the contributions Of Louis Pasteur in the field of Microbiology.
- 17 Add an outline view of bacterial flagella with suitable diagram.
- 18 Algae as primary producers - Justify with suitable examples.
- 19 Point out the basic steps involved in sexual life cycle of Rhizopus.
- 20 Elucidate the morphology of protozoa and add a note on sexual reproduction of protozoa.

Z-Z-Z

END