

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2018
(Third Semester)

Branch- MICROBIOLOGY

MICROBIAL PHYSIOLOGY & METABOLIC REGULATION

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10x2 = 20)

- 1 Chemotroph.
- 2 Yield coefficient.
- 3 Oxidative phosphorylation.
- 4 Endospore.
- 5 Germinants.
- 6 Organic electron donors.
- 7 Nucleotides.
- 8 Murin.
- 9 Green sulphur bacteria.
- 10 Fermentation.

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5x5 = 25)

- 11 a Classify the organisms based on their energy sources.
OR
b Note on ABC transporters.
- 12 a List out the properties of spores.
OR
b Short note on spore staining.
- 13 a Note on (3 - oxidation).
OR
b Note on (i) Co-enzymes (ii) Pyruvate dehydrogenase.
- 14 a Note on fatty acid synthase complex.
OR
b Note on GABA.
- 15 a Short note on lactic acid fermentation.
OR
b Note on methanogenesis.

SECTION - C (30 Marks!)

Answer any THREE Questions

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

- 16 Compare & contrast active & passive transport.
- 17 Give an detailed account on spore formation.
- 18 Write an essay on TCA cycle.
- 19 Give an account on peptidoglycan biosynthesis,
on qn arrmint nn Calvin Benson cycle.