

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(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 (10 x 2 = 20)

- 1 Exponential phase.
- 2 Psychrophils. ■
- 3 The Schaeffer - Fulton Stain.
- 4 Endospore resistant.
- 5 Carbohydrates metabolism.
- 6 Isomerization.
- 7 Peptidoglycon.
- 8 Aminoacid biosynthesis precursors.
- 9 Lactic acid fermentation.
- 10 Photosynthesis.

SECTION - B (25 Marks!)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Write brief note on synchronous culture.
OR
b Give a short note on passive transport of nutrients. ■
- 12 a Describe about functions of endospores.
OR
b Write about sporogenesis.
- 13 a What are the steps involved in Kreb's cycle?
OR
b Give a short note on generation of ATP.
- 14 a Write about biosynthesis of triglycerides.
OR
b Give an account on Salvage pathway.
- 15 a Explain about mixed acid fermentation.
OR
b Describe about Oxygenic Photosynthesis in Bacteria.

SECTION - C (30 Marks!)

Answer any **THREE** Questions

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

- 16 Explain about continuous culture.
- 17 Write detailed notes on endospore development.
- 18 Discuss the glycolysis reaction.
- 19 Give a detailed note on pyrimidine biosynthesis.
- 20 Elaborate on solvent fermentation.