

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2019
(Sixth Semester)**

Branch - **MICROBIOLOGY**

MICROBIAL ECOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Pyramids.
- 2 Ecological succession.
- 3 Zoogloal film.
- 4 Elutriation.
- 5 Write rot fungus.
- 6 Bioaccumulation.
- 7 Phyllosphere
- 8 Wilt.
- 9 Biofuels.
- 10 Indicator organism.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Discuss briefly on the types of food chain.
OR
b Describe the organisation of a Ecosystem.
- 12 a Write an account on microbial communities in actuate environment.
OR
b What is composting? List out various methods of composting and explain how to prepare compost.
- 13 a Describe about biological treatment of dyes.
OR
b Write an account on biodeterioration of paper.
- 14 a What is rhizosphere? Write an account on the effect of rhizosphere microflora on plants.
OR
b Write the causative organism, symptoms, etiology and control measures of blight disease of paddy.
- 15 a Write an account on water borne pathogens.
OR
b What is bioleaching. Describe the heap leaching method of bioleaching.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Writean elaborate account on Darwin's theory of natural selection.
- 17 Writein detail on the tertiary treatment of sewage.
- 18 Writean account on sources and detoxification strategies of heavy metals.
- 19 Writein detail mycorrhizal interactions and their beneficial effects.