

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2018
(Fifth Semester)

Branch - **BOTANY**

MICROBIAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

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

- 1 What is a strain?
- 2 Define aerobic and anaerobic organisms.
- 3 What are baffles?
- 4 What you by starter culture?
- 5 List the sources of wine.
- 6 Write a role of tetracycline in medicine.
- 7 Define single cell protein(SCP).
- 8 Write a short note on sewage disposal.
- 9 What is Glycoside hydrolase?
- 10 Define *cry* protein.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Describe the isolation process of microorganism.
OR
b Discuss the microbial culture collection.
- 12 a How to construct an aerobic fermentor?
OR
b List out the sterilization used in fermentation process.
- 13 a Give a note on lactic acid production.
OR
b Write a note on streptomycin .production.
- 14 a Give a list of 5 species of edible mushrooms and their nutritional values.
OR
b Write an overview of sewage treatment with flow diagram.
- 15 a Discuss the laboratory techniques of fungal insecticide production.
OR
b List out the source of production of vitamins.

SECTION - C (30 Marks!)

Answer any **THREE** Questions

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

- 16 Explain the methods of inoculum preparations.
- 17 Give an account on commercially important bioreactors.
- 18 Write an essay on production of antibiotics with special reference to penicillin.
- 19 Draw the biogas plant design, composition and its applications.

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Answer any THREE Questions

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