

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – BOTANY

INDUSTRIAL BIOTECHNOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions
ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 What is strain?
(i) Genetic variant (ii) Organelle variant
(iii) Ecological variant (iv) None of the above
- 2 Who discovered fermentation in 1857?
(i) RH Whitaker (ii) Louis Pasteur
(iii) W. Fleming (iv) Alexander Fleming
- 3 Choose the world's first antibiotic.
(i) Azithromycin (ii) Streptomycin
(iii) Penicillin (iv) Tetracyclines
- 4 Find out the following fungus without mycelium.
(i) Agaricus (ii) Albugo
(iii) Puccinia (iv) Saccharomyces
- 5 Identify the nature of an enzyme.
(i) Lipid (ii) Protein
(iii) Carbohydrate (iv) Vitamin

SECTION - B (15 Marks)

Answer ALL Questions
ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Compare the primary screening with secondary screening.
OR
b Show the protocol for strain development.
- 7 a Sketch out the fermentor design.
OR
b Explain the process of media sterilization.
- 8 a Narrate a short history of streptomycin.
OR
b Prepare the flow chart of wine production.
- 9 a Bring out the advantages of microbial proteins.
OR
b Summarize the process of sewage disposal.
- 10 a Explain about the bacterial insecticides with examples.
OR
b Outline the properties of cellulases.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Identify the exact preservation of microorganisms.
OR
b Highlight the centers of type collection with reference to microbes.
- 12 a Discuss about the different types of fermentor.
OR
b Examine the pros and cons of fermentation.
- 13 a Discover the production process of penicillin.
OR
b Outline the production of citric acid.
- 14 a Point out the factors affecting mushroom cultivation.
OR
b Analyze the biogas production with diagram.
- 15 a Discuss about the fungal insecticides.
OR
b Summarize the production of proteases.

Z-Z-Z

END