

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

Branch – MICROBIOLOGY
MICROBIAL ECOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 What are the two basic categories of an ecosystem?
a) Aquatic and terrestrial b) Aquatic and forest
c) Ponds and lakes d) Rivers and forests
- 2 Which of the following is the next step after water abstraction in waste water treatment?
a) Treatment b) Supply to consumers
c) Supply to receiving body d) Combine with stormwater
- 3 Which of the following is the primary source for synthetic dyes?"
a) Plant extracts b) Animal products
c) Coal tar d) Mineral ores
- 4 What is the full form of VAM?
a) Vesicular-arbuscular mycorrhiza
b) Venom Azolla mycorrhiza
c) Venom-arbuscular mycorrhiza
d) Vesicular-azollae mycorrhiza
- 5 _____ is the amount of oxygen required to oxidize only organic matter in sewage.
a) Turbidity b) BOD c) COD d) DO

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 (a) What is microbial community?
OR
(b) What is a Food Chain and Food Web?
- 7 (a) How can we reduce, reuse and recycle water?
OR
(b) What are the microorganisms in marine ecosystem?
- 8 (a) Write source and origin of dyes
OR
(b) Write the environmental impact of dyes.
- 9 (a) What is Rhizosphere?
OR
(b) Explain Sugarcane smut disease.
- 10 (a) How is biogas produced?
OR
(b) How is COD measured?

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 (a) What is an Ecological Pyramid? write its types.
OR
(b) Describe Marine Ecosystems.
- 12 (a) Discuss the differences between the primary, secondary and tertiary loader treatment.
OR
(b) What is sludge? Explain Methods of sludge disposal.
- 13 (a) Explain sources of heavy metal and its impacts on human health.
OR
(b) Describes detoxification strategies.
- 14 (a) Give detail notes on Bacterial blight disease of paddy.
OR
(b) Differentiate Ectomycorrhizae and Endomycorrhizae.
- 15 (a) Briefly explain water-borne diseases and their impact.
OR
(b) What is bioleaching? Explain its types.

Z-Z-Z

END