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Roll No.

M.Sc. IV Semester Examination, 2021 **BOTANY**

Paper IV (Limnology-II)

Time: 3 Hours] Max. Marks: 80

Note: All questions are compulsory. Question Paper comprises of 3 sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.

SECTIONA

 $1 \times 8 = 8$

(Objective Type Questions)

- 1. In terms of size, which of the following plankton is smallest?
 - (a) Pico plankton
- (b) Nano plankton
- (c) Net plankton
- (d) Micro plankton
- 2. Phytobenthos attached to the rock are known as:
 - (a) Epiphyton
- (b) Epipsammon
- (c) Epilithon
- (d) Metaphyton
- **3.** Which of the following is a surface floating plant?
 - (a) Ceratophyllum
- (b) Eicchornia

(c) Typha

(d) Nymphaea

P.T.O.

- 4. Association of Azolla with Anabaena is an example of:
 - (a) Symbiosis
- (b) Parasitism
- (c) Predation
- (d) Competition
- **5.** C.O.D. is determined by :
 - (a) Winkler method
 - (b) Azide Modification method
 - (c) Reflux method
 - (d) Diazotization method
- **6.** Which of the following lake has maximum primary production?
 - (a) Oligotrophic lake (b) Mesotrophic lake
 - (c) Eutrophic lake (d) Hypotrophic lake
- 7. In which step of sewage treatment, aerobic bacteria are used?
 - (a) Primary treatment
 - (b) Secondary treatment
 - (c) Tertiary treatment
 - (d) All of these
- **8.** The Water Prevention and Control of Pollution Act was enacted in:
 - (a) 1977

(b) 1974

(c) 1988

(d) 2003

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SECTION B

 $4 \times 6 = 24$

(Short Answer Type Questions)

Note: Attempt one question from each unit.

Unit-I

1. Write a note on classification of phytobenthos.

Or

Write a concise note on Algal bloom.

Unit-II

2. Describe the categories of aquatic higher plants.

Or

Write a brief note on parasitism of Algae.

Unit-III

3. Explain the B.O.D. and its determination.

Or

Discuss the primary productivity in fresh water lakes.

Unit-IV

4. Write a note on Aquatic resource management.

Or

Describe the causes of pollution of aquatic resources.

SECTION C

 $12 \times 4 = 48$

(Long Answer Type Questions)

Note: Attempt one question from each unit.

Unit-I

1. Write a detail note on classification of phytoplanktons.

Or

Write an account on aquatic insects and their environmental significance.

Unit-II

2. Disceus the biotic relationship and interaction among organisms.

Or

Write an essay on lake bacteria.

Unit-III

3. Discuss the use and misuse of Inland waters.

Or

Describe the aquatic flora as Bioindicators of water quality.

Unit-IV

4. Describe the methods of sewage treatment.

Or

Discuss the means of aquatic resource conservation.

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