

Roll No :

Total No. of Questions : 11]

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SP-687

M.Sc. (Final) Examination, 2021

MICROBIOLOGY

Paper - VI

(Microbial Ecology and Environmental Biotechnology)

Time : 1½ Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

नोट :- सभी दस प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 50 शब्द)। प्रत्येक प्रश्न 2 अंक का है।

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 5 marks.

(खण्ड-ब)

(अंक : 5 × 5 = 25)

नोट :- सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा 200 शब्द)। प्रत्येक प्रश्न 5 अंक का है।

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit 500 words). Each question carries 10 marks.

(खण्ड-स)

(अंक : 10 × 3 = 30)

नोट :- पाँच में से किन्हीं तीन प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 500 शब्द)। प्रत्येक प्रश्न 10 अंक का है।

BI-328

(1)

SP-687 P.T.O.

Section–A

2 each

1. (i) Define Droplet Nuclei.
- (ii) What are Mangroves ?
- (iii) What is Predation ?
- (iv) What are Bacteroids ?
- (v) What is Ecosystem ?
- (vi) What do you mean by Environmental Stresses ?
- (vii) What is Composting ?
- (viii) What do you mean by BOD ?
- (ix) What is Biodeterioration ?
- (x) Write examples of leather degrading micro-organisms.

Section–B

5 each

2. What are Impingers ? Write uses of impingers.

Or

Write in brief about Freshwater Ecosystem.

3. Explain Commensalism Interaction between organisms with suitable examples.

Or

Write in brief about symbiotic cellulose digestion in organisms.

4. Differentiate between Oxygenic and Anoxygenic Photosynthesis.

Or

Discuss oxidative transformation of sulphur in micro-organisms.

5. Discuss the types of wastes affecting environment.

Or

Write Gasification process of solid waste treatment.

6. Discuss microbial degradation of paper and wood.

Or

What are GMO ? Write their role on environment.

Section–C

10 each

7. Describe various types of air microbes and their impact on transmission of air borne diseases.

8. Discuss the role of micro-organisms in Ruminants and the factors influencing the growth of micro-organisms.

9. Describe various interactions found among microbial populations.

10. Describe Waste Water Treatment.

11. What do you mean by Biosemediation ? Discuss its process and advantages.