

Roll No :

Total No. of Questions : 11]

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SP-688

M.Sc. (Final) Examination, 2021

MICROBIOLOGY

Paper - VII

(Geomicrobiology, Soil and Agricultural Microbiology)

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-329

(1)

SP-688 P.T.O.

Section–A

2 each

1. (i) Define Stromatolites.
- (ii) Define Bioleaching.
- (iii) What do you understand by Rhizosphere ?
- (iv) Define Silage.
- (v) Citrus canker is caused by
- (vi) Cotton wilt is caused by
- (vii) Name *two* pathogens of plant roots.
- (viii) Define Antagonism.
- (ix) Name *two* free living Nitrogen-fixing Bacteria.
- (x) Write the function of Nitrogenase enzyme.

Section–B

5 each

2. Write a short note on fossil fuels.

Or

Explain briefly about soil-microflora.

3. Write a short note on Nitrogen-fixation.

Or

Write a short note on Mycorrhizal associations.

4. Explain briefly about the mechanism of disease resistance in Plants.

Or

Write a short note on host-parasite relationship.

5. Explain briefly about microbial pathogens of plant roots.

Or

Write a short note on microbial pathogens of plant shoots.

6. How microbial insecticides are important in agriculture ?

Or

Write a short note on nif-genes and their functions.

Section–C

10 each

7. Write an essay on biogeochemical cycles.
8. Write in detail about agricultural and urban waste compost.
9. Write an essay on viral diseases of plants.
10. Explain in detail about the application of micro-organisms to control plant diseases.
11. Write an essay on Biofertilizers.