| Enrollment No: | Exam Seat No: |
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C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name : Environmental Microbiology

Subject Code: 5SC03EMB1 Branch: M.Sc. (Microbiology)

Semester: 3 Date: 22/11/2022 Time: 11:00 To 02:00 Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

| | | SECTION – I | |
|-----|----|---|------------|
| Q-1 | | Attempt the Following questions | (07) |
| | a. | Define: Microbial Ecology | 01 |
| | b. | Give name of Cellulase producing organisms. | 01 |
| | c. | What is COD? | 01 |
| | d. | MSW stands for? | 01 |
| | e. | Municipal water is treated through which process? | 01 |
| | f. | What is Synecology? | 01 |
| | g. | is 'the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed'. | 01 |
| Q-2 | | Attempt all questions | (14) |
| | a. | Write brief note on evolution of life on Earth | (7) |
| | b. | Write down detail note on Biofilm. | (7) |
| | | OR | () |
| Q-2 | | | (14) |
| | | What is Biogeochemical cycle? Explain in detail about any two cycles. | |
| Q-3 | | Attempt all questions | (14) |
| | a. | Write a detail note on Biofertilizer. | (7) |
| | b. | Write a detail note on Microbial interaction. | (7) |
| | | OR | ` ´ |
| Q-3 | | Attempt all questions | (14) |
| | a. | Briefly write on Microbial Ecology. | (7) |
| | b. | Write detail note on VAM. | (7) |



SECTION – II

| Q-4 | | Attempt the Following questions | (07) |
|-----|--------------|---|------|
| | a. | Write a full form of SCP. | 01 |
| | b. | Which type of microorganisms are used to cellulase production? | 01 |
| | c. | What is Environmental Microbiology? | 01 |
| | d. | What is disadvantages of chemical fertilizer? | 01 |
| | e. | Give any three Lignin degrading bacteria. | 01 |
| | f. | Enlist the name of Air microflora. | 01 |
| | g. | What is Microbial Diversity? | 01 |
| Q-5 | | Attempt all questions | (14) |
| | a. | Write a brief role on biodegradation of Pesticide. | (7) |
| | b. | Write detail note on waste water treatment. | (7) |
| | | OR | · / |
| Q-5 | | | (14) |
| | \mathbf{w} | Write a detail on physical & chemical characteristics of Soils. | () |
| Q-6 | | Attempt all questions | (14) |
| | a. | Write detail note on Liquid waste treatment. | (7) |
| | b. | Write short note on Microbial Diversity | (7) |
| | | OR | |
| Q-6 | | Attempt all questions | (14) |
| | a. | Write a detail note on Microbial Amylase production | (7) |
| | h. | Write a detail note on Eutrophication. | (7) |

