

RAN-2503001302031111

B.Sc. (NCF-NEP) (Semester-II) Examination April - 2026
BT-ME-201 : Biotechnology (Water Foot Print)

Time: 1 Hour]
[Total Marks: 25

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવર્ણી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book. (2) Figures to the right indicate full marks of the question. (3) Draft new and labelled diagrams whenever necessary.	Seat No.: <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> </table> Student's Signature						

- Q-1. Answer in brief any five of the following: 05**
- What is grey water footprint?
 - Name two energy sources that use water.
 - How does water use impact biodiversity?
 - Calculate the grey water footprint if pollutant load is 4 kg, maximum concentration is 0.02 kg/m³, and natural concentration is 0.002 kg/m³.
 - What is indirect water use in water footprint? Give one example.
 - Define: Green water footprint.
- Q-2. Attempt any two of the following: 10**
- Compare and contrast different water footprint assessment tools. Discuss their strengths, limitations and application in water management practices.
 - Discuss in your own words basic concept and importance of water footprint.
 - "A holistic sustainability assessment of the water footprint" integrates multiple criteria, explain why all components of sustainability must take into account both water consumption and water pollution.
- Q-3. Attempt any two of the following: 10**
- Elaborate how water footprint affects biodiversity with suitable examples.
 - Analyse the environmental implications of water use in energy production. Discuss the water footprint associated with conventional and renewable energy sources, and propose strategies to mitigate water-related impacts.
 - Identify and discuss future challenges and solutions concerning water footprint management.