

## B.Sc. (NEP) Sem.-5 Examination

DSC-C-352

Env. Science

November-2025

Time : 2-00 Hours]

[Max. Marks : 50

- Instructions:** (1) Draw figures where necessary.  
 (2) Show question number against each answer.  
 (3) Figures in right are marks.

**Q1.** Write a detail note on distribution of microorganisms in air and water. (10)

OR

**Q1(A)** A detail note on microbial interaction. (05)

**Q1(B)** A brief note on metabolic diversity of microorganisms in nature. (05)

**Q2.** Write a detail note on steps of waste water treatment. (10)

OR

**Q2(A)** Note down the importance of oxidation ponds and aerated lagoons. (05)

**Q2(B)** Explain different types of scrubbers. (05)

**Q3.** Explain, how pest and disease are controlled by microorganisms in detail. (10)

OR

**Q3(A)** A brief note on microbial degradation of xenobiotics. (05)

**Q3(B)** What do you mean by eutrophication? Explain in detail. (05)

**Q4.** A detail note on Southern-Northern RNA blotting techniques. (10)

OR

**Q4(A)** Writ a note on PCR. (05)

**Q4(B)** Explain the role of genetic engineering in science and its applications. (05)

**Q5.** Write any **Ten** out of twelve. (10)

- 1) Define biomagnification.
- 2) Why are wetlands important in terms of pollution control?
- 3) Difference between BOD and COD.
- 4) Note down the stepwise process of treatment system.
- 5) What does phylogenetic mean?
- 6) Name the microorganisms helpful in pest control.
- 7) What does gene expression indicate?
- 8) In which process of wastewater treatment alum used?
- 9) Define Microbes.
- 10) Full form of RT-PCR.
- 11) Name the scrubber with highest efficiency to clean the gas.
- 12) Why is screening important in wastewater treatment?

