

Roll No.....

Total No. of Printed Pages: 1

Total No. of Questions: [11]

M.Sc. (Microbiology) (Semester – 2nd)
ENVIRONMENTAL MICROBIOLOGY
Subject Code: MMBLS1-205
Paper ID: [21221411]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It carries 16 marks. It consists of 4 questions of 4 marks each.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(4 marks each)

- Q1. Discuss the role of microorganisms in environmental microbiology
- Q2. Write in brief about various detection methods of microbes found in air
- Q3. Discuss about activated sludge process for purification of waste water
- Q4. Discuss in brief about molecular markers for ecological study of soil microorganisms

Section – B

(8 marks each)

- Q5. What are the various water-borne diseases due to faecal contamination of water? Mention the indicator organisms.
- Q6. Enumerate the air microflora. Discuss in detail about various methods of air sampling.
- Q7. What do you understand by microbial interaction? Explain the Parasitism, predation, antagonism with the microbial communities of the rhizosphere.
- Q8. What are the different biological factors influencing the growth and survival of microorganisms.

Section – C

(10 marks each)

- Q9. Explain various processes involved in the treatment of sewage.
- Q10. How many types of microorganisms live in soil? Describe in brief about different factors affecting them.
- Q11. What is the significance of biochemical cycles? Explain in detail about nitrogen cycle