

Microbiology (P.G.)

[CBCS]

M.Sc. Third Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-304

Environmental Microbiology

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

- 1. Answer any five questions of the following: 5x2= 10**
- a. What is Eutrophication?
 - b. Write down the composition of municipality waste water.
 - c. Differentiate between BOD and COD.
 - d. What are Xenobiotics? Give example.
 - e. What is Biodiesel? Write down the advantage.
 - f. What is activated sludge? and where is it used? 1+1
 - g. Name the human transmitted diseases.
 - h. What are biopesticides? Name any two. 1+1

2. Answer any four questions of the following: 4x5= 20

- a. What is solid waste? Write about solid waste management. 1+4
- b. Write down the trickling filter methods to treat the waste water. 5
- c. What is bioaugmentation? Mention the factors affecting bioaugmentation. 1+4
- d. Schematically represent the biodegradation of any one xenobiotic compound. 5
- e. What is air pollutant? Write the different source of air pollution. 1+4
- f. What is Biodiesel? Write down any one production process of biodiesel. 1+4

3. Answer any one question of the following: 1x10=10

- a. Schematically represent the secondary and tertiary treatment of waste water. Name two microbes associated with waste water treatment. 8+2
- b. Write down the process of production of vermicompost and nutrient value of vermicompost. Write down three examples of biopesticides. 5+2+3