

U.G. 5th Semester Examination - 2021

ENVIRONMENTAL SCIENCE

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : ENVS-H-DSE-P-02B

[PRACTICAL]

(Waste and Wastewater Management)

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Answer **any two** of the following : 10×2=20

1. Write down the principle and procedure of determining the amount of phenolics present in any wastewater sample. Comment on the permissible limit of phenol concentration present in industrial wastewater to be discharged into inland surface water and public sewers. 3+5+2
2. How will you determine the moisture content of sludge? Write in detail the working steps of determining ash in sewage sludge samples. 5+5
3. State the principles of determining oil and grease and VOC content of wastewater and sludge

respectively. Mention the concentration calculation process. 6+4

4. State the sources of oil and grease pollution in wastewater. What is the range of oil and grease content in sewage? With the help of Stokes Law, comment on the factors affecting the separation of free oil from water. 4+1+5

[Turn over]