

U.G. 5th Semester Examination - 2020

ENVIRONMENTAL SCIENCE

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : ENVS(H)DSE-P-02B/PR

[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 : $10 \times 2 = 20$

1. Write down the procedural differences between estimating the amount of TSS and TDS of a wastewater sample stating the principles of estimation.

$5 + 5 = 10$

2. How will you determine the quantity of VOCs present in a sludge sample? Write down the principle of Atomic Absorption Spectrophotometry for measuring the amount of lead present in a sludge sample.

$7 + 3 = 10$

3. State the principle of determining oil, grease and phenolic concentrations in a wastewater sample. How will you calculate the concentrations of the above parameters?

$6 + 4 = 10$

[Turn over]

- 4) a) Calculate the moisture content of a sludge sample (given the wet and dry weight of the sample as 5.0 kg and 3.5 kg respectively).
b) Differentiate between volatile and non-volatile substances of sewage sludge. What precautions should be taken during storing of sludge samples.

$3 + 2 + 5 = 10$