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0404N74

Candidate's Seat No :_____

B.Sc Semester-6 Examination

CC 308

Env. Science

April-2024

Time : 2-30 Hours] **[Max. Marks : 70**

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

Q.1 Note down the metal ions in water, soil and waste sample. (14)

OR

Q.1(A) Applications of UV.VIS in the analysis of water and soil sample. (07)

Q.1(B) Explain the determination of turbidity in water. (07)

Q.2 Note down the classification of chromatographic separation. (14)

OR

Q.2(A)Write a note on Gas chromatography. (07)

Q.2(B) write a note on different pesticides present in water. (07)

Q.3 Note down the design of major ETP units. (14)

OR

Q.3(A) Write down the characteristics of waste from tannery and dye industry. (07)

Q.3(B) Explain the concept of ETP. (07)

Q.4 Discuss the principle of remote sensing and its types. (14)

OR

Q.4(A) Detail note on GIS and types. (07)

Q.4(B) Explain active and passive sensors in detail. (07)

Q.5 Answer any **seven** out of twelve. (14)

A. What does the Beer-Lambert law describe in spectrophotometry?
B. What does GC-MS stand for, and how does it enhance the capabilities of gas chromatography?
C. Name one common technique used for the determination of metal ions in environmental samples.
D. What is the role of the stationary phase in chromatography?
E. What are some characteristic pollutants found in waste from tanneries?
F. Briefly explain the difference between active and passive sensors in remote sensing.
G. Which part of the electromagnetic spectrum is typically used in UV-Vis spectrophotometry?
H. Write full-form of GIS and GPS.
I. Briefly explain the function of the Flame Ionization Detector (FID) in gas chromatography.
J. Define the concept of Common Effluent Treatment Plants (CETP) and their significance in industrial waste management.
K. Why is an Effluent Treatment Plant (ETP) necessary in industries such as distilleries and dairies?
L. What is the primary purpose of using airborne sensors in remote sensing?