

U.G. 2nd Semester Examination - 2021**ENVIRONMENTAL SCIENCE****[HONOURS]****Course Code : BENVCCHT201****Course Title: Environmental Chemistry**

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** questions: $1 \times 10 = 10$
- What do you mean by the term 'metalloid'?
 - Define oxidation number.
 - What is buffer capacity?
 - Define coagulation.
 - Mention two aliphatic organic acids.
 - What do you mean by chemical equilibrium?
 - Define adsorption.
 - What is Stoichiometry?
 - Define equivalent weight.

- What is SPM?
- What do you mean by "green chemistry"?
- Define waste.
- What do you mean by aerosols?
- Define the term "Photochemical smog"?
- Define the term "free radical".

2. Answer any **five** of the following: $2 \times 5 = 10$
- Differentiate between oxidation and reduction reactions.
 - Define macromolecules.
 - Does silica gel absorb or adsorb?
 - Distinguish between salinity and alkalinity.
 - What is "precipitation" in environmental chemistry?
 - Mention two importances of green chemistry.
 - Calculate the oxidation state Mn in Potassium Permanganate.
 - What do you mean by "genome"?
3. Answer any **two** of the following: $5 \times 2 = 10$
- Write about applications of coagulation process in environmental management.

[Turn Over]

- b) Write short note on structure of RNA.
 - c) What are saturated and unsaturated hydrocarbons?
4. Answer any **one** of the following: $10 \times 1 = 10$
- a) Write in brief about : $5 + 5$
 - i) Chemical potential, and
 - ii) Importance of green chemistry
 - b) Give an idea on application of filtration and adsorption processes in environmental field.
 - c) Write in brief about various steps of municipal waste management by using green technology.
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