

U.G. 2nd Semester Examination - 2019

ENVIRONMENTAL SCIENCE

[HONOURS]

Course Code : ENVH/CC-03/L

Course Title : Water and Water Resources

Full Marks : 40

Time : 2½ 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 **five** of the following: $2 \times 5 = 10$

- What is meant by evapotranspiration?
- What are the states involved in Godavari water dispute?
- What is artesian well?
- Why chlorine is added to our drinking water?
- Define eutrophication.
- What makes a groundwater well go dry?
- Mention two major cations and two anions which normally constitute water salinity.
- Why wetlands are regarded as 'Nature's kidneys'?

[Turn over]

2. Write short notes on any **two** of the following: $5 \times 2 = 10$

- Rainwater harvesting in urban setting.
- Water quality standards in India
- National Water Policy
- Chemical characteristics of a lake

3. Answer any **two** questions of the following: $10 \times 2 = 20$

- Define wetland. State its ecological services. Give an account of wetland conservation and management. $1 + 3 + 6 = 10$
- Enumerate marine resources. State their commercial importance. Describe in brief the threats to marine ecosystems and resources with particular reference to global warming and climate change. $2 + 4 + 4 = 10$
- "Three fourths of the earth's surface is covered with water but there is still scarcity of water across the globe" – Explain. State the causes and consequences of groundwater depletion. What roles Indian states play in water resources management? $2 + 5 + 3 = 10$
- Briefly explain the economic significance and ecological impacts of large dams. Describe an Indian case study of interstates water-resource conflict. $5 + 5 = 10$

U.G. 2nd Semester Examination - 2019

ENVIRONMENTAL SCIENCE

[HONOURS]

Course Code : ENVH/CC-04/L

Course Title : Land and Soil Conservation and Management

Full Marks : 40

Time : 2½ 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 **five** of the following: $2 \times 5 = 10$
- What is soil profile?
 - Define soil degradation.
 - What are the common causes of accelerated soil erosion?
 - Explain soil texture.
 - What are the components of soil biodiversity?
 - Define soil health.
 - What is soil resistance?
 - Distinguish between land use and land cover.
2. Answer any **two** from the following: $5 \times 2 = 10$

a) Explain with neat sketches the procedure of land use management.

b) Explain the role of mining on soil contamination.

c) Explain detailed methods of mineral extraction with neat sketches.

d) State the emerging threats towards land degradation.

3. Answer any **two** of the following: $10 \times 2 = 20$

a) Explain sustainable land use practices in the developing countries.

b) How food security is related to soil health?

c) Explain rangeland and its degradation.

d) How is biodiversity loss related to land degradation and habitat loss? Describe the drivers of land use and land cover change in major geographic zones and biodiversity hotspots with particular reference to the Himalaya and the Western Ghats. $3+7$

[Turn over]