



Indian Association for the Cultivation of Science
(Deemed to be University under *de novo* Category)
Master's/Integrated Master's-PhD Program/Integrated Bachelor's-Master's
Program/PhD Course
End-Semester Examination-Spring 2024

Subject: Know Your Environment
Full Marks: 50

Subject Code(s): AEC 1201
Time Allotted: 3 h

Answer any five

1. Categorize and make a list of different types of natural resources. Elaborate any one resource on the following points: functions of the resource, reasons for decline of the resource (threats), impacts of loss of the resource and ways of sustainable management of the resource worldwide and in INDIA. Include appropriate figure and map as required.
2+8=10
2. Define ecosystem. Explain the ecosystem categorization and different levels of organization using appropriate diagrams. What are primary and secondary succession?
1+5+4=10
3. What is biodiversity and why is it important? Name different types of biodiversity and write very briefly about them. What is a biodiversity hotspot? How many biodiversity hotspot zones are there in the world.
3+4+2+1=10
4. What are the need of in-situ and ex-situ conservation of biodiversity and how are these practiced? In 2019, a massive wildfire broke out in Amazon rainforest, burning almost 2% of forest in western zone. In the same year, a wildfire also burnt around 2% of Kaziranga forest. In your opinion, which forest will recover faster from the devastation and why? Answer from the perspective of biodiversity.
5+5=10
5. How is background extinction different from mass extinction? Give an example of an animal which survived many extinction periods and explain the qualities it must possess to survive through the stress. Define water stress and give some examples of cities in INDIA which are currently or soon will face severe water stress.
4+3+3=10
6. Write in 2 sentences about the following topics:
 - a. RED list species in INDIA
 - b. Keystone and foundation species
 - c. Endemic and pioneer species.
 - d. UNESCO natural world heritage sites in INDIA.
 - e. Ground level ozone**5x2=10**

7. What is AQI and explain if an N95 mask will be useful if you are visiting an industrial zone releasing particulate matter of 0.25 microns in size.

“Plastic pollution is the current greatest pollution problem in the world”. Justify why? Mention current initiatives and suggest future remedies.

1+2+7=10

8. (a) Match the following:

World biological diversity day
One horned Rhino
Environment Protection Act
Asiatic (Iranian) Cheetah
Klaus Hasselmann
ISRO climatic database
Blackbuck
Migratory bird
Marine Ecosystem
Asiatic Lion

Earth's Climate Modelling
Coral Reef
Endangered
Bhuvan
14th May
Gir
1986
22nd May
Eastern Himalayan Hotspot
Grassland

10X1=10
