

**INSTITUTE OF AERONAUTICAL ENGINEERING**

(Autonomous)

Dundigal-500043, Hyderabad

**B.Tech I SEMESTER END EXAMINATIONS (REGULAR) - FEBRUARY 2024**

Regulation: BT23

**ENVIRONMENTAL SCIENCES****Time: 3 Hours****(COMMON TO ALL BRANCHES)****Max Marks: 60****Answer ALL questions in Module I and II****Answer ONE out of two questions in Modules III, IV and V****All Questions Carry Equal Marks****All parts of the question must be answered in one place only****MODULE – I**

1. (a) State the different types of aquatic ecosystems. Discuss briefly about each, bringing out their unique characteristics, and the threats to these ecosystems. [BL: Understand| CO: 1|Marks: 6]
- (b) Outline about food chain and food web. Describe the organisms which typically occupy various levels in an ecological pyramid. [BL: Understand| CO: 1|Marks: 6]

**MODULE – II**

2. (a) How are big dams beneficial? Discuss the environmental impacts of building the water reservoirs and dams. [BL: Understand| CO: 2|Marks: 6]
- (b) Summarize different types of renewable energy system. Differentiate between renewable and non renewable energy sources. [BL: Understand| CO: 2|Marks: 6]

**MODULE – III**

3. (a) What is value of biodiversity and describe different types of values of biodiversity. [BL: Understand| CO: 3|Marks: 6]
- (b) List the major hotspots of biodiversity in our country. Why is it important to preserve these areas and how do they contribute to the environment in different ways? [BL: Understand| CO: 3|Marks: 6]
4. (a) Explore the necessity for viewing biodiversity as a global resource. Discuss the various threats to biodiversity due to habitat loss and poaching of wild life. [BL: Understand| CO: 4|Marks: 6]
- (b) Write a short notes on
  - i) In-situ and Ex-situ conservation of biodiversity
  - ii) Endangered and endemic species. [BL: Understand| CO: 4|Marks: 6]

**MODULE – IV**

5. (a) Identify the sources, characteristics and environmental impacts of e-waste. Suggest the measures to be taken against the detrimental effects of electronic wastes. [BL: Understand| CO: 5|Marks: 6]

- (b) Elaborate the sources, effects and methods of control of the following:  
i) Soil pollution  
ii) Noise pollution. [BL: Understand| CO: 5|Marks: 6].
6. (a) Describe in detail the principle of primary and secondary waste water treatment methods. [BL: Understand| CO: 5|Marks: 6]  
(b) Explain how sustainable life styles are closely linked to prevention of pollution and conservation of resources. [BL: Understand| CO: 5|Marks: 6]

### MODULE – V

7. (a) Summarize the legal aspects and the rules framed in wild life protection act and forest conservation act [BL: Understand| CO: 6|Marks: 6]  
(b) How do you reduce the issues involved in enforcement by environmental legislation? Explain in brief. [BL: Understand| CO: 6|Marks: 6]
8. (a) Discuss the guidelines and methods to be followed for the handling and disposal of biomedical wastes. [BL: Understand| CO: 6|Marks: 6]  
(b) Write short notes on  
i) Environmental protection act  
ii) Prevention and control of pollution act. [BL: Understand| CO: 6|Marks: 6]

