



**KINGS**

COLLEGE OF ENGINEERING



**DEPARTMENT OF CHEMISTRY**

## **QUESTION BANK**

**SUBJECT CODE & NAME : HS 1201 – ENVIRONMENTAL SCIENCE & ENGINEERING**

**YEAR / SEM : II / III**

**UNIT – I**

### **IMPORTANCE OF ENVIRONMENTEL STUDIES**

#### **PART – A [ 2 marks ]**

1. Define Environmental Science (2)
2. What is meant by deforestation (2)
3. State the environmental effects of extracting & using mineral resources. (2)
4. State the need for public awareness for solving environmental problems. (2)
5. What is geothermal energy (2)
6. State any two problems caused by the **construction** of dams (2)
7. Write any two functions of forest (2)
8. What are the advantages of conjunctive uses of water? (2)
9. Define environmental impact statement (2)
10. What is soil fertility? (2)
11. Explain soil leaching? (2)
12. What is soil erosion? How can it be controlled? (2)
13. Define desertification. (2)
14. Define Overgrazing. What are the effects of overgrazing? (2)
15. Distinguish between water logging & Salinity (2)

#### **PART – B [16 marks. ]**

1. Explain Renewable & non-Renewable energy resources with examples.
2. (i) Compare nuclear power with coal (6)  
(ii) Write a note on energy conservation (6)  
(iii) What is Solar Space heating? Explain (4)
3. (i) What are the causes of soil erosion & deforestation?  
Explain in detail (8)  
(ii) Discuss the consequences of overdrawing surface and Ground water. (8)
4. Write briefly on any four alternate source of energy

5. (i) Write the effects of extracting and using mineral resources. (4)  
(ii) Explain the scope & importance of Environment (8)  
(iii) Enumerate the benefits & draw backs of building of dams (4)
6. (i) What are the effects of modern Agriculture.(8)  
(ii) Discuss the causes of land degradation.(8)

## UNIT – 2

### ECOSYSTEMS AND BIO DIVERSITY

#### PART – A

1. Define Producers. (2)
2. Name the four ecosystems (2)
3. What is Ecological succession? (2)
4. What are food chain & food Webs? (2)
5. What is the classification of biotic component of ecosystems? (2)
6. Define Biodiversity (2)
7. What are the advantages& disadvantages of in-situ& ex-situ conservation of biodiversity? (2)
8. Enumerate the human activities which destroy the biodiversity (2)
9. Write note on endemic species (2)
10. Define Biosphere. (2)
11. Define consumers & Classify them. (2)
12. What is Biomes? Give Examples (2)
13. Define Estuaries (2)
14. Define poaching (2)
15. Define Species & Genetic diversity (2)

#### PART – B

1. (i) What is an ecosystem? Describe the structure & function of various components of an ecosystem. (10)  
(ii) Explain the various threats to biodiversity (6)
2. (i) Define Ecological pyramids and explain different types of ecological pyramids. (6)  
(ii) Describe the types, characteristics features, structure& function of  
1. Forest ecosystem 2. Aquatic ecosystem (10)
3. (i) Explain In-Situ & Ex-Situ Conservation of Biodiversity (8)  
(ii) What is meant by value of biodiversity? Explain different values of biodiversity (8)
4. Write briefly on  
1. Ecological succession 2. Energy flow through an ecosystem 3. Hot spots of biodiversity ( 4+4+8)
5. (i) What is the biodiversity what are the reasons for decline for biodiversity (10)  
(ii) Write short notes on: (1)Producers (2) Consumers (3) Decomposers (3 X 2 = 6)

## UNIT – 3

### ENVIRONMENTEL POLLUTION

#### PART – A

1. Define pollution. (2)
2. Name any four air pollutants, and their sources and impacts. (2)
3. What are point and non-point sources of water pollution? (2)
4. Define hazardous wastes. (2)
5. Write any four major water pollutants. (2)
6. Define photochemical smog. (2)
7. Define floods. (2)
8. Define disasters (2)
9. Write any two causes of soil pollution. (2)
10. Define noise pollution. (2)
11. When a sound causes noise pollution. (2)
12. What are the types of solid waste? (2)

#### PART – B

- 1 (i).Discuss the major air pollutants and their impacts.(8)  
(ii) Explain the various methods of controlling air pollution. (8)
- 2.(i) Discuss briefly the disposal of Municipal solid waste management.(8)  
(ii) Explain the causes, effects and control measures of water pollution.(8)
3. (i) Discuss major air pollutants and their impacts.(6)  
(ii) What is Thermal pollution and explain their impacts?(6).  
(iii)What are the sources of Radioactive pollution?(4)
- 4.(i) Explain in detail the role of individual in conservation of natural resources.(8)  
(ii).Explain the effects nuclear and Radiation pollution .(8)
- 5.(i) Write a brief note on of thermal pollution.(6)  
(ii) Discuss the causes, effects & control measures of marine pollution.(10)

## UNIT – IV

### SOCIAL ISSUES AND THE ENVIRONMENT

#### PART – A

1. What are the causes and effects of global warming? (2)
2. What are causes and effects of ozone layer depletion? (2)
3. What is acid rain? (2)
4. Explain the term sustainable development? (2)
5. Define resettlement and rehabilitation. (2)
6. Write note on climate change. (2)
7. Explain green house effect. (2)

# HS 1201 – ENVIRONMENTAL SCIENCE & ENGINEERING

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8. Write reason for wetland reclamation. (2)
9. Write any four effects of climate change. (2)
10. What is watershed management? (2)

## PART-B

- 1.(i) Explain forest conservation act..(8)  
(ii) Write the factors influence the unsustainable to sustainable development. .(8)
- 2.(i) Explain nuclear accidents and holocaust. .(8)  
(ii) Write notes on global warming. .(8)
- 3.(i) Write a note on watershed management.(4)  
(ii) Write briefly Bhopal disaster and Chernobyl disaster.(8)  
(iii) Discuss briefly on environment protection act 1986. (4)
4. (i) Discuss the agenda for sustainable development (8)  
(ii) Write briefly on nuclear accidents (8)
5. Write briefly on
  - a. Green House Effect (4)
  - b. Acid Rain (4)
  - c. Rain water Harvesting (6)
  - d. Climate Change (2)

## UNIT – V

### HUMAN POLLUTION AND THE ENVIRONMENT

#### PART – A

1. Define Population explosion (2)
2. Define ZPG (Zero Population Growth) (2)
3. Briefly account on human rights. (2)
4. Define Population equilibrium (20)
5. Explain total fertility rate (2)
6. Define population equation (2)
7. Explain EI N0 (2)
8. State how environment and human health are related (2)
9. State the role of information technology in environment. (2)
10. List the problems of population growth. (2)
11. What is AIDS? How to prevent it? (2)

#### PART – B

1. (i) Explain the role of IT in environment and human health. (12)  
(ii) Write short note on Value Education (4)
2. (i) Write briefly on implementation of family planning programme. (6)  
(ii) Write a note on AIDS in developing country  
(iii) Discuss the factors influencing the family size (6)

## HS 1201 – ENVIRONMENTAL SCIENCE & ENGINEERING

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3. (i) Population explosion affects the environment seriously – discuss. (8)  
(ii) Deterioration of environment leads to deterioration of human health – Justify. (8)
4. (i) Write a note on the following in relation to human population & environment  
A. Woman Child Welfare B. Human Rights C. Value Education (8)  
(ii) Write briefly on:  
1. Population momentum 2. Population Profile 3. Age structure (8)
5. (i) Discuss the growth of population can be successfully implemented (8)  
(ii) Discuss the factors influencing the family size (4)  
(iii) Discuss on the steps taken in India to prevent AIDS (6)