

## B.Pharm I Year II Semester (R23) Supplementary Examinations March 2026

**ENVIRONMENTAL SCIENCES**

(B.Pharmacy)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- |   |    |
|---|----|
| (a) How can an individual contribute to conserving water resources? | 2M |
| (b) List two natural resources that need urgent conservation.       | 2M |
| (c) Define soil erosion. Mention one way to prevent it.             | 2M |
| (d) Define food security.   | 2M |
| (e) What are the two main components of an ecosystem?               | 2M |
| (f) What are the two major threats to marine ecosystems?            | 2M |
| (g) How do forests contribute to maintaining ecological balance?    | 2M |
| (h) Why are estuaries highly productive?                            | 2M |
| (i) What is the role of vehicular emissions in air pollution?       | 2M |
| (j) Name two diseases caused by contaminated water.                 | 2M |

**PART – B**

(Answer all the questions: 05 X 10 = 50 Marks)

- |   |    |
|---|----|
| 2 (a) How does deforestation impact the availability of natural resources?  | 5M |
| (b) What measures can individuals take to reduce deforestation and conserve forests?  | 5M |
| <b>OR</b>   |    |
| 3 (a) Explain the relationship between environmental studies and sustainable development.   | 5M |
| (b) How can education and awareness help in environmental conservation?   | 5M |
| 4 (a) Explain the major causes of water scarcity.   | 5M |
| (b) What measures can be taken to ensure sustainable water management?  | 5M |
| <b>OR</b>   |    |
| 5 (a) The major causes of land degradation include soil erosion (from wind and water), deforestation, overgrazing, improper agricultural practices, and industrial and mining activities, all leading to loss of soil fertility and biodiversity. | 5M |
| (b) Suggest five effective methods to prevent or control land degradation.  | 5M |
| 6 (a) Describe the structure of an ecosystem with suitable examples.  | 5M |
| (b) Explain the energy flow in an ecosystem with the help of a food chain.  | 5M |
| <b>OR</b>   |    |
| 7 (a) Describe the major characteristics of freshwater ecosystems.  | 5M |
| (b) How do rivers and lakes differ in terms of ecosystem structure and function?  | 5M |
| 8 (a) Explain the role of producers, consumers, and decomposers in a forest ecosystem.  | 5M |
| (b) How does deforestation impact the biodiversity of a forest ecosystem?   | 5M |
| <b>OR</b>   |    |
| 9 (a) Explain the role of phytoplankton and zooplankton in aquatic ecosystems.  | 5M |
| (b) How do human activities like industrial waste disposal and agricultural runoff affect aquatic ecosystems?   | 5M |
| 10 (a) Discuss the effects of excessive use of chemical fertilizers and pesticides on soil quality.   | 5M |
| (b) What are some sustainable agricultural practices to prevent soil pollution?   | 5M |
| <b>OR</b>   |    |
| 11 (a) What is the role of government regulations and policies in controlling environmental pollution?  | 5M |
| (b) How can individuals contribute to reducing pollution in their daily lives?  | 5M |

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B.Pharm I Year II Semester (R23) Regular &amp; Supplementary Examinations September/October 2025

**ENVIRONMENTAL SCIENCES**

(B.Pharmacy)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- |   |    |
|---|----|
| (a) Why environmental studies is considered a multidisciplinary field?  | 2M |
| (b) Give two examples of renewable natural resources.                   | 2M |
| (c) What do you mean by water scarcity?                                 | 2M |
| (d) Differentiate between renewable and non-renewable energy resources. | 2M |
| (e) How does energy flow in an ecosystem?                               | 2M |
| (f) How is a desert ecosystem adapted to water scarcity?                | 2M |
| (g) Mention two key features of a grassland ecosystem.                  | 2M |
| (h) Compare ponds and lakes in terms of biodiversity.                   | 2M |
| (i) List two major causes of air pollution.                             | 2M |
| (j) What is eutrophication?   | 2M |

**PART – B**

(Answer all the questions: 05 X 10 = 50 Marks)

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|--|----|
| 2 (a) Discuss the importance of environmental studies in addressing global environmental challenges. | 5M |
| (b) What role do individuals play in promoting environmental sustainability?                         | 5M |
| <b>OR</b>  |    |
| 3 (a) Define natural resources and explain their classification.                                     | 5M |
| (b) How can natural resources be conserved?  | 5M |
| <b>OR</b>  |    |
| 4 (a) Discuss the major causes and consequences of deforestation.                                    | 5M |
| (b) Suggest five strategies for the conservation of forest resources.                                | 5M |
| <b>OR</b>  |    |
| 5 (a) How does modern agricultural practice affect food security and the environment?                | 5M |
| (b) What are some sustainable agricultural practices that can help conserve food resources?          | 5M |
| <b>OR</b>  |    |
| 6 (a) Define an ecosystem and explain its major components.  | 5M |
| (b) How do biotic and abiotic factors interact within an ecosystem?                                  | 5M |
| <b>OR</b>  |    |
| 7 (a) Explain the functional aspects of an ecosystem, including productivity and nutrient cycling.   | 5M |
| (b) Discuss the role of decomposers in maintaining ecosystem balance.                                | 5M |
| <b>OR</b>  |    |
| 8 (a) What are the main characteristics of a stream and river ecosystem?                             | 5M |
| (b) How do rivers support biodiversity and human livelihoods?  | 5M |
| <b>OR</b>  |    |
| 9 (a) Explain the ecological significance of ocean ecosystems.                                       | 5M |
| (b) What are the major threats faced by marine ecosystems, and how can they be mitigated?            | 5M |
| <b>OR</b>  |    |
| 10 (a) Define air pollution and explain its major causes.  | 5M |
| (b) How does air pollution affect human health and the environment?                                  | 5M |
| <b>OR</b>  |    |
| 11 (a) Describe the effects of industrial and agricultural pollutants on water bodies.               | 5M |
| (b) What are some effective measures for preventing and treating water pollution?                    | 5M |

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B.Pharm I Year II Semester (R23) Supplementary Examinations April/May 2025

**ENVIRONMENTAL SCIENCES**

(B.Pharmacy)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
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|---|----|
| (a) List out the scope of environmental studies.          | 2M |
| (b) What are non-renewable resources? Give examples.      | 2M |
| (c) State biotic resources.                               | 2M |
| (d) What do you mean by equitable use of resources?       | 2M |
| (e) What are the functions of an ecosystem?               | 2M |
| (f) Which are the different types of food chain?          | 2M |
| (g) What are the primary producers in a forest ecosystem? | 2M |
| (h) List two features of a grassland ecosystem.           | 2M |
| (i) What are indoor air pollutants? Give examples?        | 2M |
| (j) What is Eutrophication?                               | 2M |

**PART – B**

(Answer all the questions: 05 X 10 = 50 Marks)

- 2 (a) Explain the multidisciplinary nature of environmental studies and its significance in understanding complex environmental issues. 5M
- (b) Analyze the role of environmental studies in promoting sustainable development across various sectors. 5M

**OR**

- 3 (a) What are the roles and responsibilities of individuals in reducing energy consumption to conserve natural resources? 5M
- (b) Examine the significance of community-based initiatives led by individuals in the conservation of biodiversity. 5M
- 4 (a) Discuss the major causes of deforestation and its impact on biodiversity and climate change. 5M
- (b) Discuss the causes and consequences of water scarcity, and suggest strategies for individual-level water conservation. 5M

**OR**

- 5 (a) Analyze the implications of over-exploitation of mineral resources on future generations. 5M
- (b) Discuss the causes and consequences of land degradation, with a focus on soil erosion and desertification. 5M
- 6 (a) Define an ecosystem and explain its key components and their interactions. 5M
- (b) Discuss the primary functions of an ecosystem, such as nutrient cycling and energy flow, and their importance for ecosystem health. 5M

**OR**

- 7 (a) Discuss the importance of biodiversity within different ecosystem types and how it contributes to ecosystem stability. 5M
- (b) Describe the key characteristics of a temperate forest ecosystem and how it differs from a tropical rainforest ecosystem. 5M

Contd. in Page 2

- 8 (a) Describe the key components of a forest ecosystem, including the roles of producers, consumers, and decomposers. 5M  
(b) Discuss the ecological roles of herbivores, carnivores, and decomposers in a grassland ecosystem. 5M

**OR**

- 9 (a) Analyze the effects of climate change on desert ecosystems and suggest strategies for their conservation and management. 5M  
(b) Discuss the key features and ecological importance of estuaries and how they serve as critical habitats for various species. 5M

- 10 (a) Explain the major sources of air pollution and their impact on human health and the environment. 5M  
(b) Describe the primary sources of water pollution and their effects on aquatic ecosystems and human health. 5M

**OR**

- 11 (a) Explain the main causes of soil pollution and how it affects soil fertility and plant health. 5M  
(b) Discuss the impact of chemical pesticides, heavy metals, and industrial waste on soil quality and agricultural productivity. 5M

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B.Pharm I Year II Semester (R23) Regular Examinations September 2024

**ENVIRONMENTAL SCIENCES**

(B.Pharmacy)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

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|---|----|
| (a) What are the elements of environment?                             | 2M |
| (b) What are renewable resources? Give examples.                      | 2M |
| (c) What is soil erosion?   | 2M |
| (d) What do you mean by land as a resource?                           | 2M |
| (e) What is an ecosystem?   | 2M |
| (f) What do you mean by 'web of life'?                                | 2M |
| (g) Define forest ecosystem.  | 2M |
| (h) Define aquatic ecosystem.   | 2M |
| (i) List the main segments of atmosphere.                             | 2M |
| (j) Define air pollution. List two important causes of air pollution. | 2M |

**PART – B**

(Answer all the questions: 05 X 10 = 50 Marks)

- |   |    |
|---|----|
| 2 (a) Discuss the role of an individual in conservation of natural resources. | 5M |
| (b) Discuss the need for the awareness of environmental studies programme.    | 5M |

**OR**

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|--|----|
| 3 (a) Explain sustainable development.   | 5M |
| (b) What are the physical, biological and cultural elements that constitute environment? | 5M |

- |  |    |
|--|----|
| 4 (a) Write critical notes on overexploitation of forests.   | 5M |
| (b) Describe the classification of natural resources and problems associated with natural resources. | 5M |

**OR**

- |   |    |
|---|----|
| 5 (a) Analyze the implications of over-exploitation of mineral resources on future generations. | 5M |
| (b) How forests help to provide prosperity of human beings and to the nation.                   | 5M |

- |   |    |
|---|----|
| 6 (a) Define an ecosystem. Explain its structure and functions.   | 5M |
| (b) Write a note on the biotic and abiotic components of an ecosystem explaining the functions of each with examples. | 5M |

**OR**

- |   |    |
|---|----|
| 7 (a) Describe ecological pyramid.                                    | 5M |
| (b) Explain the energy flow in an ecosystem. What is an energy cycle? | 5M |

- |   |    |
|---|----|
| 8 (a) Describe aquatic ecosystems. Which are the different types and explain each?                  | 5M |
| (b) Explain a forest ecosystem focusing on the different types, its importance and characteristics. | 5M |

**OR**

Contd. in Page 2

- 9 (a) Discuss the characteristics of grassland ecosystem, highlighting the major types and their global distribution. 5M  
(b) Discuss the roles of desert ecosystem in the global environment, highlighting their ecological significance. 5M
- 10 (a) Explain the cause, effects and control measures of (i) water pollution, (ii) soil pollution. 5M  
(b) Analyze critically the factors responsible and remedial measures for air pollution. 5M
- OR**
- 11 (a) What is pollution? Which are the different types? Explain the role of NGO/individual in the protection of environment. 5M  
(b) What are the causes of land degradation/soil pollution? Suggest few techniques to reduce soil pollution. 5M

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