



Paper ID : 261533

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Subject Code: BAS204

Roll No:

B.TECH.

(SEM. II) THEORY EXAMINATION 2025-26
ENVIRONMENT AND ECOLOGY

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt all questions in brief.

02 x 7 = 14

Q no.	Question	CO	Level
a.	Write components of environment and classify them into biotic and abiotic.	CO-1	K1
b.	Discuss food chain for an agricultural field and extend it into a food web.	CO-1	K2
c.	Discuss health effect of fluoride contamination of ground water.	CO-2	K1
d.	Discuss nutrient cycling to explain eutrophication in lakes.	CO-2	K2
e.	What is 3-R strategy in solid waste management? Discuss	CO-1	K1
f.	What are various anthropogenic sources of air pollution?	CO-3	K1
g.	Discuss the role of NGOs in combating environmental related issues in India.	CO-5	K1

SECTION B

2. Attempt any three of the following:

07 x 3 = 21

Q no.	Question	CO	Level
a.	If a green park in an urban area is converted into a commercial complex, then apply concept of environmental components to assess the environmental impact due to this change.	CO-1	K3
b.	The Ganga River in Kanpur city is polluted due to industrial discharge and domestic sewage. Explain its effects on aquatic life and human health, and suggest suitable control measures.	CO-2	K3
c.	Apply scientific, social, and legal measures to suggest a plan for environmental protection and sustainable development in a pollution-affected city.	CO-3	K3
d.	Discuss the problem of air pollution in a city and suggest practical measures that individuals and communities can adopt to reduce environmental impact due to air pollution.	CO-4	K3
e.	A colony in a metro city generates various kinds of waste. Enumerate the measures that can be adopted as sustainable practices to minimize environmental consequences as well as generate green energy.	CO-5	K3

SECTION C

3. Attempt any one part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	What is an ecosystem? Explain its structure and functions with a neat diagram. Also describe ecological pyramids.	CO-1	K3
b.	Explain environmental impact assessment (EIA). How EIA is helpful protecting our environment?	CO-1	K3

4. Attempt any one part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	In some parts of Uttar Pradesh, groundwater is contaminated with arsenic and fluoride. Discuss its causes, effects, and remedial measures.	CO-2	K3
b.	Geochemical Cycles are adversely affected by industrial emissions, draw and discuss nitrogen cycle.	CO-2	K3

5. Attempt any one part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Given a case of industrial discharge through pipes/sewer line and fertilizer /pesticides runoff from agriculture fields, classify these pollution sources and recommend appropriate mitigation strategies.	CO-3	K3



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b.	Write down a typical composition of solid waste generated from an Indian city. Apply the waste management hierarchy to propose a sustainable waste management plan	CO-3	K3
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6. Attempt any one part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain the sources and health impacts of noise pollution in Indian cities. Also discuss different strategies for its control and impact mitigation.	CO-4	K3
b.	North India is badly affected by vehicular pollution and stubble burning. Evaluate their environmental impacts and also propose various practical solutions.	CO-4	K3

7. Attempt any one part of the following:

07 x 1 = 07

Q no.	Question	CO	Level
a.	Explain how the provisions of the Environmental Protection Act, 1986 can be used to control pollution in an industrial area with suitable examples.	CO-5	K3
b.	Propose some of the strategies involving environmental education and women empowerment in controlling pollution.	CO-5	K3