

B.E. / B.Tech. / M.Tech - DEGREE EXAMINATIONS, NOV / DEC 2025

Second Semester

Electronics and Communication Engineering

(Common to Information Technology, Mechanical Engineering
& M.Tech. Computer science and Engineering)

20BSCY201 - ENVIRONMENTAL SCIENCE AND ENGINEERING

Regulations - 2020

Duration: 3 Hours

Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)

Answer ALL Questions

	<i>Marks</i>	<i>K- Level</i>	<i>CO</i>
1. Which is the abiotic component of an ecosystem? (a) Soil (b) Protein (c) Carbon (d) All the above	1	K1	CO1
2. Which term refers to the variety of different species in an ecosystem? (a) Population (b) Biodiversity (c) Biome (d) Community	1	K1	CO1
3. Which of the following is called the secondary air pollutant? (a) PAN (b) Ozone (c) Carbon monoxide (d) Nitrogen Dioxide	1	K2	CO2
4. Which of these is the most naturally occurring and frequent disaster? (a) Tsunami (b) Drought (c) Earthquake (d) Flood	1	K1	CO2
5. Deforestation may reduce the chances of (a) Frequent landslides (b) Erosion of surface soil (c) Rainfall (d) Frequent cyclones	1	K1	CO3
6. This is an example of non-polluting renewable type of energy (a) Tidal (b) Wind (c) Solar (d) All of these	1	K1	CO3
7. Main cause of ozone holes and its depletion is (a) Propellants (b) Foam-blowing agents (c) Halocarbon refrigerants (d) All of these	1	K1	CO4
8. Sulphur dioxide is produced by (a) Nuclear power plant (b) Coal power plants (c) Hydroelectric power plants (d) All of the above	1	K1	CO4
9. Which of the following is NOT typically taught in value education? (a) Social responsibility (b) Ethical decision-making (c) Tolerance and respect (d) Financial management techniques	1	K1	CO5
10. Which of the following is a symptom of AIDS? (a) Fever (b) Swollen lymph nodes (c) Tiredness (d) All of the above	1	K1	CO5

PART - B (12 × 2 = 24 Marks)

Answer ALL Questions

11. Outline the term Food Chain.	2	K2	CO1
12. What are hot spots?	2	K1	CO1
13. Differentiate between food chain and food web.	2	K2	CO1
14. List out the effects of Noise pollution.	2	K1	CO2
15. State thermal pollution.	2	K1	CO2
16. Indicate the causes of the earthquake.	2	K2	CO2
17. Distinguish between Renewable and Non-renewable energy sources.	2	K1	CO3
18. Define the Blue baby syndrome (or) Nitrate Pollution.	2	K2	CO3
19. Infer Environmental Ethics.	2	K1	CO4
20. List the names of green house gases.	2	K1	CO4

21. What is Population Explosion? 2 K1 CO5
22. Illustrate the term human rights. 2 K2 CO5

PART - C (6 × 11 = 66 Marks)

Answer ALL Questions

23. a) Describe the structure and functional components of an ecosystem. 11 K2 CO1
- OR**
- b) Summarize the methods involved in the conservation of biodiversity. 11 K2 CO1
24. a) Explain the Air Pollutant sources and their effects on human & Environment. 11 K2 CO2
- OR**
- b) Explain the causes, effects and control measures of Municipal Solid waste. 11 K2 CO2
25. a) Demonstrate the impact of modern agriculture on the environment. 11 K2 CO3
- OR**
- b) Explain the role of an individual in conservation of natural resources. 11 K2 CO3
26. a) Relate the Causes, effects of Global warming and Acid rain. 11 K2 CO4
- OR**
- b) Explain the 12 principles of green chemistry. 11 K2 CO4
27. a) State AIDS. Discuss briefly on the modes of transmission of HIV and how it can be prevented? 11 K2 CO5
- OR**
- b) Discuss the 17 sustainable Development goals. 11 K2 CO5
28. a) (i) Demonstrate the method of Rainwater harvesting. 5 K2 CO5
- (ii) Illustrate the various issues and measures for women and child welfare. 6 K2 CO6
- OR**
- b) (i) Illustrate environmental impact analysis. Explain the key elements of EIA. 5 K2 CO5
- (ii) Illustrate the objectives and elements of value education. 6 K2 CO6