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**Question Paper Code: 42004**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Second Semester

Civil Engineering

14UCY204 – ENVIRONMENTAL SCIENCE AND ENGINEERING

(Common to ALL branches)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 1 = 10 Marks)

1. Ecomark of our country  
(a) Earthen mug      (b) Earthen pitcher      (c) Earthen saucer      (d) Earthen lamp
2. Which of the following is an example of ex-situ conversation?  
(a) Biosphere reserve      (b) Gene bank      (c) Sanctuary      (d) All of these
3. Air pollutants mixing up with rain can cause  
(a) High acidity      (b) Low acidity  
(c) Neutral condition      (d) None of these
4. The concentration of toxic substances builds at successive levels of food chain is known as  
(a) Eutrophication      (b) Coagulation  
(c) Biomagnifications      (d) Sedimentation
5. Overgrazing results in \_\_\_\_\_.  
(a) productive soils      (b) soil erosion  
(c) retention of useful species      (d) All the above

6. Blue baby syndrome is caused by the contamination of water due to \_\_\_\_\_.  
(a) phosphates (b) sulphur (c) arsenic (d) nitrates
7. Rain water harvesting has the following advantages  
(a) Avoids flooding (b) Recharge ground water  
(c) Reduce runoff (d) All the above
8. Which of the following gas has maximum contribution to enhance green house effect?  
(a) CFC (b) CH<sub>4</sub> (c) CO<sub>2</sub> (d) N<sub>2</sub>O
9. Declaration of human rights on the environment was drafted by United Nations at  
(a) Stockholm (b) Geneva (c) Rio-de Jenerio (d) Johannesburg
10. ENVIS generates database on  
(a) Coastal ecology (b) Biodiversity  
(c) Occupational health (d) All of these

PART - B (5 x 2 = 10 Marks)

11. List the two important biodiversity hot spots in India.
12. Write the two harmful effects of water pollution.
13. Write any two functions of forests.
14. Define the term sustainable development.
15. Mention the significance of value education.

PART - C (5 x 16 = 80 Marks)

16. (a) Write a short note on  
(i) Energy flow in an ecosystem. (8)  
(ii) Ecological pyramids. (8)
- Or
- (b) (i) Give an account of various values of biodiversity. (8)  
(ii) Write a note on in-situ and ex-situ conservation of biodiversity. (8)

17. (a) Discuss the causes, effects and control of marine pollution. (16)

Or

(b) (i) Describe the causes, effects and control measures of air pollution. (8)

(ii) Write the causes, effects and preventive measures of earthquake and tsunami natural disasters. (8)

18. (a) (i) Enumerate the environment impacts of modern agriculture practice. (8)

(ii) Discuss the environmental impacts of mineral extraction. (8)

Or

(b) (i) Discuss in detail about world food problems. (8)

(ii) Explain the role of individual in conservation of natural resources. (8)

19. (a) (i) What are the two objectives of sustainable development? Discuss the various measures for sustainable development. (8)

(ii) What are the causes and consequences of global warming? (8)

Or

(b) Write short notes on Forest Conservation Act. (16)

20. (a) (i) Briefly discuss HIV/AIDS, mode of its spread and its effect on environment. (16)

Or

(b) (i) Write a note on human rights. (8)

(ii) Discuss the role of information technology in monitoring environment and Human health. (8)

