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Question Paper Code: 41205

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2015.

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. Water logging and soil salinity are the outcomes of
 - (a) Over irrigation
 - (b) Mining
 - (c) Acid rain
 - (d) Soil erosion

6. Example for renewable energy resources is
(a) Biogas (b) Coal (c) Petroleum (d) Diesel
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) CH₄ (c) CO₂ (d) N₂O
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) (i) What are the sources of water pollution? Discuss activated sludge process of waste water treatment. (8)
- (ii) What are the adverse effects can solid waste causes? How can the solid waste be managed? (8)

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) Explain the major causes and consequences of deforestation. (8)
- (ii) Write short notes on the problems of fertilizers and pesticides on modern agriculture. (8)

Or

- (b) (i) Discuss about the harvesting method of solar energy and wind energy as renewable sources. (8)
- (ii) Explain the causes, harmful effects and control measures of land degradation. (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) (i) Explain the roof top method of rain water harvesting and its advantages. (8)
- (ii) What are wastelands? Explain the methods of wasteland reclamation. (8)
20. (a) (i) What is population explosion? What are the impacts of population explosion over the environment? (8)
- (ii) Discuss the family welfare and child welfare programmes. (8)

Or

- (b) (i) Write a note on human rights. (8)
- (ii) Discuss the role of information technology in monitoring environment and Human health. (8)
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