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**A Reg. No. :**

**Question Paper Code: 52007**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Second Semester

Civil Engineering

15UCY207 - ENVIRONMENTAL SCIENCE

(Common to ALL Branches)

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 1. | **Ecosystem is smallest unit of** | | | | | | | | | | | CO1- R | |
|  | (a) Ionosphere | | | (b) Lithosphere | | (c) Biosphere | | | | | | (d) Mesosphere | |
| 2. | Wildlife Week is celebrated on | | | | | | | | | | | CO1- R | |
|  | (a) 1st October to 7th October | | | | | (b) 15th October to 21st October | | | | | | | |
|  | (c) 1st June to 7th June | | | | | (d) 15th June to 21st June | | | | | | | |
| 3. | Which of the following is not an air pollutant? | | | | | | | | CO2- R | | | | |
|  | (a) Smoke | | (b) Carbon Dioxide | | | (c) Nitrogen Gas | | | (d) Sulphur Dioxide | | | | |
| 4. | The acceptable limit of noise during day time is | | | | | | | | CO2- R | | | | |
|  | (a) 45 dB | | | | | (b) 90 dB | | | | | | | |
|  | (c) 120 dB | | | | | (d) 150 dB | | | | | | | |
| 5. | Fuel formed under the earth's surface by the decomposition of organic matter is called | | | | | | | CO3- R | | | | | |
|  | (a) Organic fuel | | | (b) Biogas | | (c) Fossil fuel | | (d) Under-ground fuel | | | | | |
| 6. | Which energy is converted into electrical energy by a solar cell? | | | | | | | CO3- R | | | | | |
|  | (a) Chemical Energy | | | | | (b) Nuclear Energy | | | | | | | |
|  | (c) Solar Energy | | | | | d) Magnetic Energy | | | | | | | |
| 7. | Renewable source of energy is | | | | | | | | | CO4- App | | | |
|  | (a) 0 | | | (b)1 | | (c)2 | | | | (d)3 | | | |
| 8. | Show de – Broglie wavelength (λ) in terms of energy | | | | | | | | | CO4- R | | | |
|  | (a) Coal | | | (b) Petroleum | | | (c) Plants | | | (d) Uranium | | | |
| 9. | Study of trends in human population growth and prediction of future growth is called | | | | | | | | | CO5- R | | | |
|  | (a) Demograph | | | | (b) Biography | | (c) Kalography | | | (d) Psychology | | | |
| 10. | \_\_\_\_\_\_\_\_\_ is the screening test for AIDS. | | | | | | | | | CO5- R | | | |
|  | (a) EULASA | | | | (b) ELESA | | (c) ELASA | | | (d) ELISA | | | |
|  | PART – B (5 x 2= 10 Marks) | | | | | | | | | | | | |
| 11. | Define Food chain and Food web. CO1- R | | | | | | | | | | | | |
| 12. | What are the causes of soil pollution? CO2 -R | | | | | | | | | | | | |
| 13. | What is the importance of green power? CO3 -R | | | | | | | | | | | | |
| 14. | Distinguish between sustainable and unsustainable development. CO4 -U | | | | | | | | | | | | |
| 15. | Write any two reasons for population explosion. CO5 -R | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | |
|  | PART – C (5 x 16= 80 Marks) | | | | | | | | | | | | |
| 16. | (a) | Differentiate In-situ and Ex-situ conservation of biodiversity along with their merits and limitations. | | | | | | | | | CO1-U | | (16) |
|  |  | Or | | | | | | | | |  | |  |
|  | (b) | Explain in detail Forest ecosystem & Ecological succession. | | | | | | | | | CO1 -U | | (16) |
|  |  |  | | | | | | | | |  | |  |
| 17. | (a) | Briefly describe about the causes, effects and control measures of municipal solid waste. | | | | | | | | | CO2 -U | | (16) |
|  |  | Or | | | | | | | | |  | |  |
|  | (b) | Summarize the disposal of municipal solid waste management. | | | | | | | | | CO2- U | | (16) |
|  |  |  | | | | | | | | |  | |  |
| 18. | (a) | (i) Explain any three solar energy harvesting units that meet out  the demand of energy. | | | | | | | | | CO3 -U | | (8) |
|  |  | (ii) Describe the Geothermal energy converting process. Mention  the advantages and disadvantages of geothermal energy. | | | | | | | | | CO3 -U | | (8) |
|  |  | Or | | | | | | | | |  | |  |
|  | (b) | Discuss in detail the salient features of solar and wind energies. | | | | | | | | | CO3- U | | (16) |
|  |  |  | | | | | | | | |  | |  |
| 19. | (a) | Give a detailed account of ozone layer depletion. | | | | | | | | | CO4- U | | (16) |
|  |  | Or | | | | | | | | |  | |  |
|  | (b) | Write briefly on  (i) Nuclear accidents and  (ii) Acid rain. | | | | | | | | | CO4- U | | (16) |
|  |  |  | | | | | | | | |  | |  |
| 20. | (a) | Explain the role of IT in environment and human health. | | | | | | | | | CO-5 Ana | | (16) |
|  |  | Or | | | | | | | | |  | |  |
|  | (b) | (i) List the symptoms of HIV? How HIV affects a person? How  HIV can be prevented. | | | | | | | | | CO5- Ana | | (8) |
|  |  | (ii) Discuss the modes of transmission, diagnosis and control of  AIDS. | | | | | | | | | CO5- Ana | | (8) |