Reg. No. :

Question Paper Code: 49125

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Civil Engineering

14UCE925- ENVIROMENTAL 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. Freshwater ecosystem covers ----- percentage of the earth's surface

(a) 0.5 (b) 0.6 (c) 0.7 (d) 0.8

2. What is a another major factor for the loss of water

- (a) Industrial wastage (b) Evaporation
- (c) Human excistence (d) Domestic wastage
- 3. At present National Ambient Air Quality standards exist for how much number criteria pollutants
 - (a) 8 (b) 11 (c) 6 (d) None of the above

4. When a source of pollution cannot be identified then it is named as ------

- (a) Point source (b) Nonspecific source
- (c) Nonpoint source (d) Unidentified source
- 5. What are major issues that contribute for global warming
 - (a) Green house (b) Earth quake
 - (c) Carbon mono-oxide (d) Burning of plastics

| 6. | Which sector in U.S accounts for a significant factor for all forms pollutants except for sulfur oxides | | | | |
|--|---|----------------|----------------------|--------------------------|--|
| 7 | (a) Industrial sector (b) Medical sector (c) Transportation sector | | | sector (d) All the above | |
| 1. | Waste generated from electronic industry is called | | | | |
| | (a) Bio-medical was | te (b) e-waste | (c) Solid waste | (d) Liquid waste | |
| 8. | Along which chemical makes a radionuclides much more dangerously radio active | | | | |
| | (a) Uranium | (b) Plutonium | (c) Phosphorus | (d)None of these | |
| 9. | What is the key element of environmental impact assessment | | | | |
| | (a) Skimming | (b) Settling | (c) Priming | (d) Scoping | |
| 10. Which of the following is one of the benefits of environmental impact assessment | | | | | |
| | (a) Mitigating | | (b) obtaining enviro | onmental statements | |

(c) Maintenance of biodiversity (d) Screening

PART - B (5 x 2 = 10 Marks)

- 11. Write the structure of desert ecosystem with an example?
- 12. What is boiling point of water?
- 13. What do you understand by Soil Pollution?
- 14. Why nuclear hazards are so dangerous?
- 15. What is meant by environmental impact assessment?

PART - C ($5 \times 16 = 80$ Marks)

16. (a) Describe energy flow and material cycling in ecosystem . (16)

Or

- (b) Explain in detail about the concept of sustainable development . (16)
- 17. (a) Explain in detail about chemistry ,physics and biology properties of water, air, land (16)

Or

(b) Explain the objectives of Environmental quality analysis and discuss some of the policies which improve Environmental Sustainability (16)

| 18. (a) List the Country level issues on current environment? | (16) | | | | |
|--|------|--|--|--|--|
| Or | | | | | |
| (b) Explain about the global warming and ozone layer depletion | (16) | | | | |
| | | | | | |
| 19. (a) How can solid waste be recycled? | | | | | |
| Or | | | | | |
| (b) Classify the waste minimization techniques in detail? | (16) | | | | |
| | | | | | |
| 20. (a) What is the role of non-governmental organization in environmental management? | | | | | |
| | (16) | | | | |
| Or | | | | | |
| (b) Explain about polluter –pays principle. | (16) | | | | |