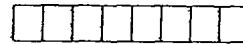


16/11/13



B.E. / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, Nov / Dec 2013

COMMON SUBJECT

3<sup>rd</sup> SEMESTER – (REGULATION 2012)

GE8351 Environmental Science and Engineering

Time: 3 hr

Max Marks 100

Answer ALL Questions

Part – A ( 10 x 2 = 20 Marks )

1. In an 'Ecosystem' what are the functions of 'Producers', 'Consumers' and 'Decomposers'?
2. Explain the concept of a 'food chain / food web' in an ecosystem?
3. Name the different components of air pollution.
4. Name some of the different ways in which human activities can pollute soil.
5. Name the advantages and drawbacks of fertilizers and pesticides.
6. Name the problems that arise from excessive farming and grazing.
7. Discuss the need for water / rain harvesting in urban areas.
8. Name the environmental issues that are currently of maximum concern to 'ecological pressure groups'.
9. Discuss the truth or falseness of the idea "*Information technology can play an important role in public health and welfare both by education and by bringing together resources and the people who need them*".
10. "*The rate of global population growth is slowing down*". Discuss the truth or falseness of this statement.

Part – B ( 5 x 16 = 80 Marks )

11. What is the meaning of the term "*Biodiversity*"? Discuss the importance of biodiversity at the genetic, species and ecosystem levels for the continuing health and happiness of mankind as a whole.
12. What is 'Pollution'? Describe the various classes and sub classes of pollution that can occur in the global ecosystem and name the sources of these pollutants.

Or

- (b) Give a case study of any anthropogenic (man-made) pollution disaster(s) known to you and discuss the effects of these on the environment (including the human populations) in which they happened.
13. Describe the concept of 'renewable and non renewable energy sources' and describe the energy sources we use classifying them from this viewpoint. What has been the historic impact of technology on this problem?

Or

- (b) Name the different sources (natural and man-made) of fresh water and discuss the effects on the environment of the utilization of these sources. Also describe the dangers of over utilization of the resources you have named.
14. Describe the history of the conflict over environmental issues between 'ecologically concerned groups' and 'technology advancement groups'. Illustrate your answer with any case studies you know of.

Or

- (b) Discuss the history and the present status of the attempts to use laws and regulations to protect the environment. Illustrate your answer with any case studies you know of.
15. Discuss the history of population growth in various societies and explain the role of differences in factors like public health, education, disposable income, technology and religion between these societies on the differences on growth rates.

Or

- (b) Discuss the effects of population size and density, level of technology, public health and other social factors of a society on the size of the 'human footprint' that it makes on the environment(s) in which that society exists. Support your opinions with evidence from various societies around the globe.