BE - 202

B.E. I & II Semester Examination, December 2013 Energy Environment Ecology & Society

Time: Three Hours

WWW.RGPVONLINE.COM Maximum Marks: 70

Note: Attempt one question from each unit. All questions carry equal marks.

Unit - I

- 1. a) What is green energy? What are its sources?
 - b) How solar energy can be used for electricity generation and water heating?
- 2. a) Discuss the role played by the non-conventional energy resources towards the protection of the environment.
 - b) Describe the sources and waste management of nuclear power energy.

Unit - II

- 3. a) Define ecosystem. Explain the importance and functions of producers, consumers and decomposers in an ecosystem.
 - b) What are the factors responsible for loss of plant and genetic biodiversity. Discuss steps needed to prevent them.
- 4. a) Explain the term "Lapse rate" and temperature inversion" with reference to atmospheric structure.
 - b) Explain hydrological cycle and oxygen cycle.

Unit - III

- 5. a) Describe any two photochemical reactions occurring in the atmosphere.
 - b) Discuss the sources and effects of particulates in the atmosphere.
- 6. a) What is the normal audio frequency range for a young healthy person? Write physiological and psychological effects of noise.
 - b) What were Chernobyl disaster and Bhopal gas disaster?

Unit - IV

- 7. a) Discuss with the help of a diagram trickling filtration process for waste water treatment.
 - b) What are Equalisation and Neutralisation of waste water?
- 8. a) Describe the role of Urban waste and modern agro-technology in soil pollution. Give their adverse effects and controlling measures.
 - b) Describe the treatment for any common industrial waste water.

Unit - V

- 9. Explain plastic waste and e-waste and discuss their management strategies.
- 10. a) Write informative notes on "Ethical situations".
 - b) Write brief note on wild-life protection act.

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