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# UNDERGRADUATE (C.B.C.S.S.) EXAMINATION, OCTOBER 2016

### Fifth Semester

## Open Course-ENERGY AND ENVIRONMENTAL STUDIES

(Offered by the Board of Studies in Physics)

[2013 Admission onwards]

Time: Three Hours

Maximum: 80 Marks

### Part A

Answer all questions briefly. Each question carries 1 mark.

- 1. What are renewable energy sources?
- 2. What is geothermal energy?
- 3. What is solar dryer?
- 4. What is green house?
- 5. What is solar photovoltaic?
- 6. What is air act?
- 7. Explain noise pollution.
- 8. What is meant by waste minimisation?
- 9. What are municipal solid wastes?
- 10. What is source reduction?

 $(10 \times 1 = 10)$ 

#### Part B

Answer any eight questions. Each question carries 2 marks.

- 11. What are the various forms of non-renewable energy?
- 12. State the limits and advantages of fusion energy.
- 13. What is wind energy? State merits.
- 14. What are secondary pollutants?

Turn over

- 15. What is solar desalination? Explain.
- 16. Explain ground water pollution.
- 17. What is global warming?
- 18. What is meant by environmental ethics?
- 19. State the main features of waste minimisation.
- 20. Give secondary pollutants that cause air pollution?
- 21. What are environmental disasters? Explain.
- 22. What is hazardous waste?

 $(8 \times 2 = 16)$ 

### Part C

Answer any six questions. Each question carries 4 marks.

- 23. Briefly discuss the storage of intermittently generated renewable energy.
- 24. Discuss the solar heating of building.
- 25. Describe the solar drying process.
- 26. Distinguish between primary and secondary pollutants. Illustrate.
- 27. Bring out the effects and treatment for environmental degradation.
- 28. Discuss the remedial measures for water pollution.
- 29. Discuss the various marine pollution factors.
- Give an account on the constitutional provisions to control pollution.
- 31. Discuss a biological method of disposal of wastes.

 $(6 \times 4 = 24)$ 

## Part D

Answer any two questions. Each question carries 15 marks.

- 32. Solar energy can solve majority problems of energy shortage. Discuss.
- 33. Discuss on the various methods adopted to prevent water pollution.
- Discuss the general acts, water and air acts and environmental protection acts in India to control
  pollution.
- 35. Describe the waste water generation and characteristics of municipal solid wastes, hazardous wastes and biomedical wastes.

 $(2 \times 15 = 30)$