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Reg. No.....

Name.....

UNDERGRADUATE (C.B.C.S.S.) EXAMINATION, OCTOBER 2015

Fifth Semester

Open Course—ENERGY AND ENVIRONMENTAL STUDIES

(Offered by the Board of Studies in Physics)

[2013 Admissions]

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer all questions briefly.
Each question carries 1 mark.*

1. What are non renewable energy sources ?
2. What is biomass ?
3. What is solar pond ?
4. Explain green house effect.
5. What is environment ?
6. What is global warming ?
7. Explain soil pollution.
8. Explain waste minimisation.
9. What are biomedical solid wastes ?
10. What is biogas ?

(10 × 1 = 10)

Part B

*Answer any eight questions.
Each question carries 2 marks.*

11. What are the various forms of energy in nature ?
12. State the limits and advantages of renewable energy.
13. What is solar energy ? State uses.
14. Explain the uses of fusion energy.
15. What is solar cooker ? Explain.
16. Explain the working principle of solar cell.
17. What is a flat plate collector ?
18. State the main features of ground water.

Turn over

19. What is meant by ecology ?
20. What are environmental disasters ? Explain.
21. What is environmental protection act ?
22. What are the sources of solid waste ?

(8 × 2 = 16)

Part C

*Answer any six questions.
Each question carries 4 marks.*

23. Differentiate between renewable and non-renewable energy sources with examples.
24. Discuss the generation and storing of hydrogen energy.
25. Describe the spectral distribution of solar radiation.
26. Discuss any *one* type of solar water heating.
27. Bring out the causes of environmental degradation.
28. Discuss on air pollution factors.
29. Discuss the various nuclear hazards.
30. Obtain the various methods for source reduction.
31. Give an account on environmental laws.

(6 × 4 = 24)

Part D

*Answer any two questions.
Each questions carries 15 marks.*

32. Biogas exploitation can solve the problem of energy to a certain extend. Discuss.
33. Discuss on the different types of flat plate collectors.
34. Discuss the various environmental pollution factors now we are facing and suggest remedial measures.
35. Describe the issues associated with disposable plastics in municipal solid wastes. Suggest recommendations for improving the situation.

(2 × 15 = 30)