18P118 (Pages: 2) Name: …………………….

Reg. No…………………...

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018
(Regular/Supplementary/Improvement)
(CUCSS-PG)
CC15P ES1 C02 – ENERGY AND ENVIRONMENT
(Environmental Science)
(2015 Admission Onwards)

Time: Three Hours   Maximum: 36 Weightage

Part A
Answer *all* the questions. Each question carries *1* weightage.

1. What is solar constant?

2. Any two non conventional energy sources.

3. Solar pond

4. Biomass

5. Carbon sequestration

6. Radiation dose

7. Write the principle involved in MHD generator.

8. Nuclear detoxification.

9. Laws of Thermodynamics.

10. Any two nuclear accidents.

11. Ozone layer.

12. Radioactive isotopes.

13. Any two microbes using resource recovery.

14. Any two radioactive elements naturally available in Kerala coast.

(14 x 1 = 14 Weightage)

Part B
Answer any *seven* questions. Each question carries *2* weightage.

15. Explain the different methods involved in nuclear waste disposal.

16. Describe India's nonrenewable energy reserves.

17. Write the techniques for energy resource recovery using microbes.

18. Mention the formation of fossil fuels in the geological time scale.

19. Elucide the environmental impacts of fossil fuels.

20. Give the limitations of non-renewable energy usage.

21. Describe the distribution of solar radiation across various atmospheric levels.

22. Explain energy flow in ecosystems.

23. Enumerate on the different types of nuclear reactors.

24. Write a note on the biomagnifications and its impacts in biological systems.

(7 x 2 = 14 Weightage)

Part C
Answer any *two* of the following. Each question carries *4* weightage.

25. Write an essay on sustainable energy management.

26. Explain the world's energy reserves, consumption and environmental implications.

27. Describe the criterion for safe exposure, hazardous wastes and its safe disposal methods.

28. Explain the crisis and challenges of energy production in the context of India.

(2 x 4 = 8 Weightage)

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