



QP CODE: 23129064

Reg No : ......

# B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, OCTOBER 2023

## Fifth Semester

# CORE COURSE - PH5CRT08 - ENVIRONMENTAL PHYSICS AND HUMAN RIGHTS

Common for B.Sc Physics Model I, B.Sc Physics Model II Applied Electronics, B.Sc Physics Model II Computer Applications & B.Sc Physics Model III Electronic Equipment Maintenance

2017 Admission Onwards

## 7B72CC3B

Time: 3 Hours

Max. Marks: 60

#### Part A

Answer any ten questions.

Each question carries 1 mark.

- 1. What is meant by environmental pollution?
- 2. Give any two examples of environmental pollution due to consumerism.
- 3. What are the benefits of environmental impact assessment?
- 4. What is the essence of the wild life protection act?
- 5. What are the merits and demerits of non-renewable energy?
- 6. What is the principle of electricity production from ocean thermal energy?
- 7. Name any three intermittently generated renewable energy sources.
- 8. Solar radiation is emitted in which form?
- 9. What are the applications of a solar pond?
- 10. Distinguish between passive and active solar water heaters.
- 11. Give any three major aspects of the international covenant on economic, social and cultural rights (ICESCR).
- 12. Which are the two freedoms a prisoner can enjoy out of the six freedoms guaranteed by article 19 of the Constitution of India?

 $(10 \times 1 = 10)$ 

Part B

Answer any **six** questions.

Each question carries **5** marks.



- 13. Write a short essay on air pollution and its impact on human life.
- Briefly discuss about the environmental pollution due to natural disasters.
- 15. Briefly discuss the methods used in solid waste management.
- 16. With the help of a neat sketch, explain the production of electricity from wind energy.
- 17. What is meant by nuclear fusion reaction? Why it is considered as a renewable energy? What are its advantages?
- 18. Compare and contrast mirror strip reflector and Fresnel lens collector.
- 19. With the help of a diagram, explain the working of a passive space (room) heating system.
- 20. Discuss the three generations of human rights.
- 21. What is the role of UN secretariat in human rights protection. Also write a short note on the activities of the economic and social council.

 $(6 \times 5 = 30)$ 

### Part C

Answer any **two** questions.

Each question carries **10** marks.

- 22. Write an essay on the sources of water pollution and its impact on human life.
- 23. Write an essay on the management of solid wastes, including municipal solid wastes and hazardous solid waste.
- 24. Differentiate between the fixed dome type and moving drum type biogas plants.
- 25. Explain the principle, equivalent circuit, and V-I characteristics of a solar cell.

 $(2 \times 10 = 20)$