QP CODE: 25804452

25804452

Reg No : .....

Name : .....

INTEGRATED MSc DEGREE EXAMINATION, OCTOBER 2025

Fifth Semester

INTEGRATED MSc BASIC SCIENCES - PHYSICS

CORE - IPH5CR01 - ENVIRONMENTAL PHYSICS & HUMAN RIGHTS

2021 Admission Onwards

FD7254DB

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Give any two natural reasons that cause flooding.
2. How earthquake causes environmental pollution.
3. What is meant by consumerism?
4. Give any three problems associated with improper management of municipal solid wastes.
5. What is meant by environmental ethics?
6. What are non-renewable energy sources?
7. How hydroelectricity is produced?
8. What is the disadvantage of convective type solar pond?
9. Define conversion efficiency of a solar cell.
10. Which are the two treaties came into existence in 1976, that give legal force to universal declaration of human rights (UDHR).

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Discuss how human health and the environment are related.
12. Explain how zoning and plantation of trees can reduce air pollution.
13. Briefly discuss the methods used in solid waste management.
14. What is meant by biomass energy. Discuss any one method for biogas production.

15. Discuss about hydrogen as a source of renewable energy.

16. Write a short essay on Sun as a source of energy.

17. With the help of suitable diagrams, explain the construction and working of direct and indirect solar water heaters.

18. Write a short essay on the human rights of children in India.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. What is meant by remote sensing? Discuss about different types of remote sensing satellites and sensors.

20. What is meant by waste management? Discuss the various methods for effective waste minimization and resource conservation. What are the benefits of waste minimization?

21. Explain how ocean thermal energy conversion differ from geothermal energy conversion.

22. Compare and contrast (i) solar heating of buildings, and (ii) solar greenhouse.

(2×5=10 weightage)