QP CODE: 22100039

22100039

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, JANUARY 2022

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

A1B13866

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Give one example each for an imaging sensor and non-imaging sensor in a remote sensing satellite.
2. Distinguish between primary and secondary pollutants.
3. What is meant by waste management?
4. What is meant by environmental ethics?
5. What are the uses of natural gas as an energy source.
6. How geothermal heat energy is produced inside the Earth?
7. Why nuclear fusion is considered as a renewable energy source?
8. Solar radiation is emitted in which form?
9. What are the two types of solar ponds?
10. What is a flat plate collector?
11. What is the mission of UN human rights council?
12. According to the Indian Constitution, what is meant by directive principles of state policy and human rights?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Discuss an open-well recharge system that can be easily implemented for groundwater conservation at your home.

14. Write a short essay on disaster management.

15. Distinguish between municipal solid waste and hazardous solid waste.

16. Write a short essay on moving drum type biogas plant.

17. Write a short essay on the various methods used to store intermittently generated renewable energy.

18. Write a short essay on different types of optical concentrators.

19. Explain the working of different types of solar drying systems.

20. Write a short essay on universality of human rights.

21. Write a short essay on the positive and negative aspects of science and technology in human rights.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Discuss different methods for controlling air pollution.

23. Write an essay on environmental laws and constitutional provisions to control pollutions in India.

24. Explain how the electricity production from tidal energy differ from traditional hydroelectricity.

25. Explain the principle, working, and uses of a photovoltaic system.

(2×10=20)

22103398

QP CODE: 22103398

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, NOVEMBER 2022

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

6312D970

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Give any two methods for rain-water harvesting.
2. Explain how fertilizers and detergents cause water pollution?
3. What are municipal solid wastes?
4. What is meant by environmental ethics?
5. What is meant by tidal energy?
6. Why hydrogen energy is considered as a renewable energy source?
7. Give any four methods commonly used to store intermittently generated renewable energy.
8. Solar radiation is emitted in which form?
9. What is the disadvantage of convective type solar pond?
10. What is a solar greenhouse
11. Article 51A(e) of the Constitution of India provides which rights to women?
12. What is the important duty of the national human rights commission of India?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Discuss the principle of remote sensing.
14. Explain how zoning and plantation of trees can reduce air pollution.
15. Write a short essay on the environment protection act.
16. Write a short essay on nuclear fission as a source of energy.
17. What is meant by biomass energy. Discuss any one method for biogas production.
18. With the help of a diagram, explain the working of a parabolic trough reflector.
19. With the help of a diagram, explain the working of a pn junction solar cell.
20. What are human rights? What are its characteristics?
21. What are the value dimensions of human rights?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Write an essay on noise pollution.
23. What is meant by waste management? Discuss the various methods for effective waste minimization and resource conservation. What are the benefits of waste minimization?
24. Explain how ocean thermal energy conversion differ from geothermal energy conversion.
25. Distinguish between direct and indirect type solar water heater.

(2×10=20)

QP CODE: 23129064

23129064

Reg No : .....

Name : .....

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?

(10×1=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.
14. 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.

(6×5=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.

(2×10=20)

QP CODE: 19102438

19102438

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Fifth Semester

Core Course - PH5CRT08 - ENVIRONMENTAL PHYSICS AND HUMAN RIGHTS

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

422F8FE5

Maximum Marks: 60 Time: 3 Hours

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Explain how toxic chemicals cause water pollution.
2. Give any remedial measure to reduce the environmental pollution due to consumerism.
3. Explain how good practices can reduce waste.
4. What is the essence of the air (prevention and control of pollution) act?
5. What is meant by nuclear fission energy?
6. What is the role of the gear system in a wind turbine generator?
7. How hydrogen can be stored?
8. What is the disadvantage of convective type solar pond?
9. Distinguish between passive and active solar water heaters.
10. What is the use of an optical concentrator?
11. Define human rights.
12. What percentage of the total number of seats to be filled by direct election in every panchayat is reserved for women?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Briefly discuss how spectral reflectance is used in remote sensing for the investigating Earth's surface features.

14. Write a short essay on acid rain.

15. Write a short essay on environmental ethics.

16. What is meant by biomass energy? How biomass can be converted into useful energy?

17. Write a short essay on the various methods used to store intermittently generated renewable energy.

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

19. Write a short essay on photovoltaic sun tracking system.

20. Write a short essay on Universal declaration of human rights.

21. Write a short essay critically appraising the UN human rights regime.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Discuss the importance of water harvesting and methods commonly adopted in Kerala for the same.

23. Discuss the various waste treatment and disposal methods to with minimal impact on environment.

24. Compare and contrast geothermal energy and ocean thermal energy as renewable energy sources.

25. Compare and contrast (i) solar dryer, and (ii) solar cooker.

(2×10=20)

QP CODE: 21100039

21100039

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATION, FEBRUARY 2021

Fifth Semester

Core Course - PH5CRT08 - ENVIRONMENTAL PHYSICS AND HUMAN RIGHTS

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

BE6B3A6B

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Give any one example for the ground water pollution in Kerala.
2. Name any three strategies used in disaster management to reduce the impact of a natural disaster.
3. Give any three problems associated with improper management of municipal solid wastes.
4. Explain composting in municipal solid waste management.
5. What are the merits and demerits of non-renewable energy?
6. Give any two advantages of renewable energy.
7. Give any four methods commonly used to store intermittently generated renewable energy.
8. Define solar constant.
9. What is the advantage of a solar pond over a flat plate collector?
10. Name any four types of optical concentrators.
11. What is meant by universality of human rights?
12. What is the important duty of the National Human Rights Commission of India?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write a short essay on any three sources of air pollution.

14. What is the role of E-waste in environmental pollution?

15. Discuss the (i) wild life protection act (ii) forest conservation act.

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

17. Write a short essay on ocean thermal energy conversion.

18. Distinguish between free-standing and attached type solar green houses.

19. Explain the principle of a solar cell.

20. Write a short essay on the international covenant on economic, social and cultural 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.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain how remote sensing can be used to investigate earth's surface features.

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

24. Explain the production and storage of hydrogen as a source of energy.

25. Write an essay on different types of solar water heaters.

(2×10=20)