

19U510S

(Pages: 2)

Name:

Reg. No:

FIFTH SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS - UG)

CC15U PH5 D01 – NON-CONVENTIONAL ENERGY SOURCES

(Physics - Open Course)

(2015 to 2018 Admissions – Supplementary/Improvement)

Time: Two Hours

Maximum: 40 Marks

SECTION A (One word Answer)

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

1. Give example for renewable energy sources
2. What is the principle of Solar cell?
3. Which Solar cooker design provides the highest temperature for cooking?
4. Give one example for rechargeable battery?
5. Write any disadvantage of geothermal energy
6. In Sun, the cause of energy production

(6 × 1 = 6 Marks)

SECTION B (Short Answer)

Answer *all* questions. Each question carries 2 marks.

7. What is the working principle of a pyranometer?
8. What do you mean by Solar green house?
9. What are the basic components of a tidal power plant?
10. Mention any four methods to produce energy from biomass.
11. What are the main uses of a storage battery?

(5 × 2=10 Marks)

SECTION C (Paragraph Answer)

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

12. With the help of a schematic, discuss the working principle of a solar pond.
13. What is meant by WECS? Discuss the horizontal axis and vertical axis types of wind turbine generators.
14. Discuss the origin of the source of wind
15. Explain the working principle of a float wave-power conversion device
16. Distinguish between primary and secondary batteries. Give examples.
17. Write a note on “Tidal power generation”.

(4 × 4 = 16 Marks)

SECTION D (Essay)

Answer any *one* question. Each question carries 8 marks.

18. What are the primary sources of energy? What are renewable energy sources? Explain the merits and demerits of each of them.
19. Explain with diagram, the working of a Horizontal Axis Wind turbine power generation system.
20. Describe the principle of working of a solar furnace. What are the main applications? What are the advantages and limitations of solar furnace?

(1 × 8 = 8 Marks)
