

21141



I SEMESTER UG EXAMINATION – MARCH/APRIL 2022

SCHEME: CBCS (NEP)

012

OPEN ELECTIVE: PHYSICS

TITLE: ENERGY SOURCES

Time: 2 ½ Hours

Max Marks: 60

Instruction: Answer any three questions from Part A & Part B.

PART-A

- | | | |
|----|---|---------|
| I | | 3x15=45 |
| 1. | (a) Explain the production of Nuclear Energy? What are its limitations? | 10 |
| | (b) Explain the importance of green energy and their related technology. | 5 |
| 2. | (a) Describe the construction and working of
(i) Solar water heater (ii) Solar cooker | 10 |
| | (b) What is biomass? Explain biogas generation. | 5 |
| 3. | (a) Explain in brief the following:
(i) Ocean Thermal Energy Conversion.
(ii) Hydroelectricity. | 10 |
| | (b) What are the needs of renewable energy? | 5 |
| 4. | (a) What is wind energy? Explain the different electrical machines in a wind turbine. | 8 |
| | (b) Explain the different types of wave energy devices. | 7 |

PART-B

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|----|--|--------|
| II | | 3x5=15 |
| 5. | (a) Write any two differences between conventional and non-conventional sources of energy. | 2 |
| | (b) What are primary and secondary energy sources? Give an example for each. | 3 |
| 6. | Describe how fossil fuels are formed. | 5 |
| 7. | What are the merits and demerits of solar energy. | 5 |
| 8. | Write a note on any one type of Geothermal Technology. | 5 |

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