**Question Paper Code: 39303** 

#### B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

#### Elective

### **Electrical and Electronics Engineering**

#### 01UEE903 - NON-CONVENTIONAL ENERGY RESOURCES

(Regulation 2013)

Duration: 1:45 hour Maximum: 50 Marks

PART A -  $(10 \times 2 = 20 \text{ Marks})$ 

# (Answer any ten of the following questions)

- 1. What is the need for renewable energy sources?
- 2. List out the applications of renewable energy.
- 3. What is solar cell?
- 4. What is solar cooling techniques?
- 5. List out the safety and environment aspects of wind energy.
- 6. Define wind power.
- 7. What is bio-mass?
- 8. What is bio-mass conversion technology?
- 9. List out geothermal energy sources.
- 10. Name various wave energy conversion devices.
- 11. What is the need for renewable energy sources?
- 12. State the world energy use.

- 13. What is flat plate solar collectors?
- 14. What is solar heating?
- 15. State environment aspects of wind energy.

$$PART - B (3 \times 10 = 30 \text{ Marks})$$

## (Answer any three of the following questions)

- 16. Summarize different reserves of energy resources and their potential achievements in the world. (10)
- 17. With suitable diagram, explain the operation of various types of solar water heating systems. (10)
- 18. Explain the working principle of wind energy system with a block diagram. List the procedures to select a site for wind electric generator installation. (10)
- 19. With diagram explain working of two stage digestion process. (10)
- 20. With diagram explain single basin tidal power plant . (10)