

Roll No.

Total No. of Pages : 02

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B.Tech. (CE/CSE/ECE/ME/EE) (Sem-6)
NON-CONVENTIONAL ENERGY RESOURCES

Subject Code : BTME615-18

M.Code : 79660

Date of Examination : 24-06-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What are sun tracking systems?
- b) What are solar green houses?
- c) What is the suitable range of wind speed for proper working of a wind turbine?
- d) What is the meaning of cut-out speed in a wind turbine?
- e) What is a solar pond?
- f) What is a bio digester?
- g) What is a fuel cell?
- h) What do you understand by biomass gasification?
- i) What is wave energy?
- j) What are the advantages of tidal energy?

SECTION-B

2. Explain construction and working of a solar PV system.
3. What are the different applications of solar energy?
4. Explain the effects of alcohol fuels on engine performance and exhaust emissions.
5. Explain construction and working of a fuel cell.
6. Explain vertical axis wind turbines.

SECTION-C

7. Explain different methods of obtaining energy from biomass.
8. Explain different methods to store solar energy.
9. Explain working of double basin tidal power plant with the help of a diagram.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.