

1525**Code : 15ME63C**Register
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VI Semester Diploma Examination, April/May-2019**RENEWABLE ENERGY RESOURCES****Time : 3 Hours]****[Max. Marks : 100**

- Note :** (i) Answer any **six** questions from PART – A.
(ii) Answer any **seven** questions from PART – B.

Published By:**PART – A**

1. Define renewable and non-renewable energy sources. 5
2. Define Solar collectors and list the types of collectors. 5
3. List applications of Solar energy. 5
4. List the advantages and limitations of wind turbines. 5
5. List the factors affecting Bio-gas generation. 5
6. List the factors to be considered for selection of site for installing wind generators. 5
7. State the advantages and disadvantages of Bio-Gas plants. 5
8. Explain briefly Geo-Thermal energy. 5
9. State the applications of fuel cells. 5

PART – B

10. (a) Explain the various principles of energy conservation. 5
(b) Explain Thermionic Emission and work function. 5
11. (a) List the advantages of Fuel Cell. 5
(b) Illustrate the principle of MHD Generation. 5
12. (a) Explain with neat sketch – winter green house. 5
(b) Explain beam radiation and diffused radiation. 5
13. (a) Explain parabolic focusing collector. 5
(b) Explain with a neat sketch Solar Water Heater. 5
14. (a) Explain the forces acting on wind blades. 5
(b) Explain the concept of lift and drag. 5
15. Explain with a neat sketch working of Wind Energy Conversion System (WECS) with main components. 10
16. (a) Mention the types of bio-Fuels. 3
(b) Explain with neat sketch floating drum type bio-gas plant. 7
17. (a) Explain the basic principle of TIDAL Power Plants. 5
(b) Explain the origin and distribution of Geo-Thermal Energy. 5
18. Explain with neat sketch vapour dominated system and liquid dominated system. 10
19. (a) Explain Thermo-Electric power generators. 5
(b) List the advantages of MHD system. 5