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**Question Paper Code: 39303**

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Elective

Electrical and Electronics Engineering

01UEE903 - NON-CONVENTIONAL ENERGY RESOURCES

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

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.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain various types of renewable energy sources. (16)

Or

(b) Describe the environment aspects of various renewable energy sources. (16)

12. (a) Explain various types of concentrating collectors. (16)

Or

(b) Explain solar photovoltaic conversion system. (16)

13. (a) With diagram explain construction and working of horizontal axis wind turbine. (16)

Or

(b) Describe and derive wind data and energy estimation. (16)

14. (a) With diagram explain working of two stage digestion process. (16)

Or

(b) Describe with block diagram from wood by acid hydrolysis. (16)

15. (a) With diagram explain single basin tidal power plant . (16)

Or

(b) Describe the arrangement of small hydro power station. (16)

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