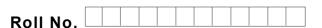
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Total No. of Pages : 02

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B.Tech.(Electronics & Electrical Engg.) (2012 to 2017 E-III) B.Tech.(Electrical & Electronics Engg.) (2013 & Onwards E-III) (Sem.–7) NON-CONVENTIONAL ENERGY SOURCES

Subject Code:BTEEE-805D

M.Code: 71972

Time: 3 Hrs.

Max. Marks : 60

INSTRUCTION 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. Answer briefly :

- a. What is the need of non-conventional energy sources? Explain.
- b. Explain the term figure of Merit.
- c. List the advantages of MHD system.
- d. Discuss the principle of MHD generation.
- e. What is the significance of solar collector? Explain.
- f. What do you mean by solar radiations? Explain.
- g. What do you mean by conversion efficiency? Explain.
- h. Explain the principle of fuel cell.
- i. List the advantages of geothermal energy.
- j. What do you mean by tidal energy? Explain.



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SECTION-B

- 2. Explain the limitations of conventional energy. Also discuss the growth of alternative energy sources.
- 3. Discuss the following :
 - a. Seeback effect
 - b. Peltier effect
 - c. Thomson Effect
- 4. Discuss the application and economic aspects of MHD generator.
- 5. Explain the various characteristics of photovoltaic cell. Also discuss the solar energy in India.
- 6. Discuss the general description and operational characteristics of fuel cells.

SECTION-C

- 7. Discuss the construction, application and economic aspects of thermo-electric generator. Also write down the properties of thermoelectric materials.
- 8. a. Explain the basic scheme and application of direct energy conservation.
 - b. Discuss in detail the different aspects of practical MHD generator.
- 9. Explain the following
 - a. Wind power
 - b. Biomass energy

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.

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