

Code: 13A02804

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2017

ENERGY RESOURCES & TECHNOLOGY

(Electrical and Electronics Engineering)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What is meant quality of energy?
 - (b) What are the fossil fuels?
 - (c) Name any four conventional power.
 - (d) What is nuclear fusion?
 - (e) What is solar constant?
 - (f) What is Betz limit?
 - (g) What is the maximum tide height?
 - (h) Write disadvantages of geothermal energy plants.
 - (i) Write different types of energy storage mechanisms.
 - (j) What is MHD?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Discuss complete cycle analysis of fossil fuels.

OR

- 3 Explain energy economics using input output analysis.

UNIT – II

- 4 Explain working of nuclear power plants.

OR

- 5 Discuss environmental effects of conventional power.

UNIT – III

- 6 Explain working of photovoltaic cell. What is open circuit voltage and short circuit current?

OR

- 7 Discuss wind electrical conversion in detail.

UNIT – IV

- 8 Explain working of solar distillation using neat diagram.

OR

- 9 Elucidate how to extract energy stored in biomass.

UNIT – V

- 10 Discuss about hydron economics in detail.

OR

- 11 Explain Magneto hydrodynamic power generation.
