

Roll No

MMTP-302(B)

M.E./M.Tech., III Semester

Examination, December 2016

Non Conventional Energy Sources (Elective-II)

Time : Three Hours

Maximum Marks: 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Draw neat diagrams wherever required.

1. a) Give conventional sources of commercial energy in Indian context.
b) How one can estimate the time for which conventional energy sources will last? Discuss.
2. a) What do you mean by Solar Concentrator? Discuss its working principle and applications in India.
b) How thermal storage of solar energy can be done? Discuss various ways.
3. a) State classification of wind mills. State their stability in fields.
b) Discuss the working principle of OTEC.
4. a) Compare various bioconversion processes with benefits and limitations.
b) What do you mean by energy plantation? Is it economic and environmental friendly. Comment.

5. a) Define the terms : nuclear fission and fusion. Write prospects and limitations of nuclear energy in Indian context.
b) What are fast reactor and breeder reactor? Discuss any one reactor.
6. a) Define Geothermal Energy. State its classification, advantages and disadvantages.
b) Explain MHD convertor with suitable diagram.
7. a) Compare various types of fuel cells in tabulated form.
b) Discuss microorganism growth requirements.
8. Write short note on following (any two) :
 - a) Wave Energy
 - b) Chemicals of Life Enzymes
 - c) Monod Equation
