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Register Number:

7244

Name of the Candidate:

DIPLOMA EXAMINATION, 2010

(ENERGY ENGINEERING)

(PAPER-I)

110. NEW ENERGY SOURCES

Dec]

[Time : 3 Hours

Maximum : 100 Marks

Answer any FIVE questions

(5×20=100)

1. a) What is alternative energy? Explain various alternative energy sources in India.
b) List the advantages and disadvantages of solar energy utilization.
2. a) Explain the parabolic solar collector and its applications.
b) Discuss on the various types of solar radiation measuring instruments.
3. a) With a neat sketch explain the types of solar collector.
b) Write short notes on (i) Solar air heater and (ii) Solar water heater.
4. a) Discuss on the materials used and the construction of flat plate collector.
b) Explain the characteristics of fiat plate collector.
5. a) What is a solar cooker? Explain box type solar cooker.
b) Describe the construction details of solar pond and its application.
6. a) Discuss on the various energy storage methods.
b) Discuss on the various components of solar cabinet dryer.
7. a) Write short notes on tidal and wave energy conversion.
b) Explain the types of wind mills mention its merits and demerits.
8. a) What is biomass gasification? Explain the types of gasification.
b) Explain the construction and working of the Biogas plant.
