

UNIT - I

2. What do you understand by renewable energy ? Explain the role and potential of new and renewable source of energy. Briefly describe some of the renewable sources of energy. 15
3. How solar radiation data is calculated ? Explain different instruments used for measuring solar radiation and sun shine. 15

UNIT - II

4. Explain Solar Energy collection process .Describe flat plate and concentrating collectors. Briefly classify concentrating collectors. 15
5. Explain Wind Energy and Sources. Explain horizontal and vertical axis windmills. Also discuss the impact of wind energy in our environment. 15

UNIT - III

6. What do understand by direct energy conversion ? Explain need for DEC, Carnot cycle, limitations and principles of DEC. 15
7. What are Fuel Cells ? Write its principles. Explain faradays laws. Describe the thermodynamic process which involved in a fuel cell. Explain the operating conditions for a fuel cell. 15

UNIT - IV

8. Explain Bio-Mass and Principles of Bio-Conversion. Describe Bio-gas digesters and it's types. Explain Anaerobic/aerobic digestion processes. 15
9. Describe geothermal energy and availability of resources in India. Explain methods of harnessing the geothermal energy. 15

Roll No.

3155

**B. Tech. 4th Semester (CSE Data Science)
Examination – May, 2023**

OBJECT ORIENTED PROGRAMMING WITH JAVA

Paper : PCC-CSE-252-G

Time : Three hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all, selecting one question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

1. Write short note on following : 15
- (a) Class
 - (b) Super class
 - (c) Exception
 - (d) JDBC
 - (e) AWT
 - (f) Garbage collection