

B. Tech. Sem - VIII (Chemical Engg.) (2014 COURSE) (CBCS) :

SUMMER - 2019

SUBJECT : ELECTIVE – IV : ENERGY ENGINEERING

Day : Thursday
Date : 23/05/2019

Time : 02.30 PM TO 05.30 PM
Max. Marks : 60

S-2019-2869

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of non-programmable calculator is allowed.
- 4) Neat diagram must be drawn wherever necessary.
- 5) Assume suitable data if necessary.

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- Q.1** Describe types of conventional energy sources in detail. **(10)**
OR
Describe types of renewable energy sources.
- Q.2** Describe the importance of energy management with a suitable example. **(10)**
OR
Describe the significance of energy audit.
- Q.3** How heat exchanger networking is done in CPI? Give its significance. **(10)**
OR
Describe the concept of Pinch and state its importance.
- Q.4** Illustrate different steps in energy system analysis. **(10)**
OR
How optimization is carried out for energy systems in industries.
- Q.5** Describe the applications of any one non-conventional energy source in detail. **(10)**
OR
Describe the concept of waste heat recovery with a suitable example.
- Q.6** Write short notes on : **(10)**
a) Energy utilization in industry
b) Thermal equipments used in industry
OR
Describe the energy audit procedure for any one chemical process industry.

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