(g) Define base load and peak load.

(h) What is load duration curve ?

(i) Write the expression for overall annual cost of electric energy generated by power plant in two part form.

(j) What is an economizer ?

SECTION – A

2. Discuss recent trends of generation of electric power. Discuss and compare different sources of energy available in nature. 20

3. (a) What is interconnected grid system ? Explain the advantages of using such system. 10

(b) Explain conventional and non conventional sources of electric energy. 10

SECTION – B

4. (a) Describe the desirable characteristics of tariff. Discuss some of important types of tariff commonly used. 10

(b) What is economics of power generation ? How Depreciation charge can be calculated by Sinking fund method ? 10

5. (a) Define the following terms : 10

(a) Load factor

(b) Diversity factor

(c) Plant capacity factor

(d) Plant use factor

(e) Demand factor

(b) The daily load curve of a power station is shown in figure. Study the figure and answer the following questions : 10

(a) What is the maximum demand on the power station ?

(b) Calculate units generated per day.

(c) Find average load.

(d) What is the load factor ?
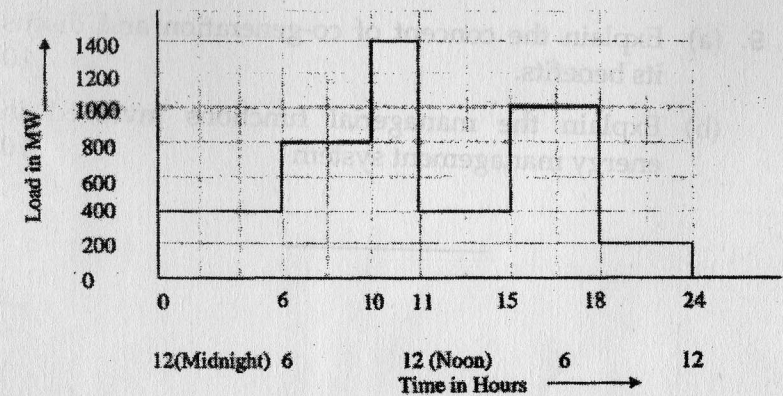
SECTION – C

6. (a) Draw schematic diagram for geo thermal generating system. Also mention the barriers associated with geothermal power generation. 10

(b) With the help of block diagram, explain the working of wind energy conversion system. 10

B.Tech. 2nd Semester (Common for all Branches)
G- Scheme Examination, May-2019
BASIC OF ELECTRICAL ENGINEERING
Paper-ESC-EE-101-G

Time allowed : 3 hours]   *[Maximum marks : 75*

Note : Question No. 1 is compulsory. *Attempt any* **one** *question from each section. All questions carry equal marks.*

1. Explain the following :

 (a) Significance of Phasor Diagram.   2.5

 (b) BH Curve and its Characteristics.   2.5

 (c) Torque-Speed characteristics of DC Motor. 2.5

 (d) Power factor and its improvement.   2.5

 (e) Voltage and Current sources.   2.5

 (f) R.M.S. value.   2.5

Section-A

2. (a) What do you mean by Kirchhoff's Law ? What are the different types ? Explain each with suitable example.   8

 (b) Explain the analysis of simple circuit with dc excitation in detail.   7

[P. T. O.