

Roll No .....

**EE-602 (GS)**  
**B.E. VI Semester Examination, June 2020**  
**Grading System (GS)**  
**Electrical Power Generation**  
**Time : Three Hours**

**Maximum Marks : 70**

**Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. Draw the neat line diagram of a nuclear power plant showing basic components. Discuss the advantages of nuclear power plant compared with thermal power plant.
2. Draw a typical layout of the thermal power plant and describe the working of coal and Ash handling plants.
3. Define and explain the importance of the following terms in generation:
  - i) Connected load
  - ii) Max. demand
  - iii) Demand factor
  - iv) Diversity factor
4. Explain MHD power generation technology in detail.
5. Differentiate between the nuclear fission and nuclear fusion. What is the function of moderator in a nuclear reactor.
6. The maximum demand of a power plant is 40MW. The capacity factor is 0.5 and the utilisation factor is 0.8. Find
  - i) Load factor
  - ii) Plant capacity
  - iii) Reserve capacity
  - iv) Annual energy production
7. What is wind energy? Explain the sources and potentials for wind energy in India.

OR

Explain the potential for Geothermal energy in India.
8. Write short notes on any two of the following:
  - a) Cogeneration with topping cycle
  - b) Selection of water turbine
  - c) Geothermal power generation

\*\*\*\*\*