

Roll No

EE-602 (GS)**B.E. VI Semester**

Examination, December 2017

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. a) What is wind energy? What are various types of wind mills? Explain. 7
b) What are non-conventional sources of energy? Describe various types of solar collectors. 7
2. a) Describe an open cycle and closed cycle MHD power generation. 7
b) How can solar energy converted into electrical energy? 7
3. a) What are the function of moderator and control rods in a nuclear reactor? 7
b) Give the advantages and disadvantages of a gas turbine power plant. 7
4. a) Draw a neat sketch of a Thermal power plant and explain its functions? 8
b) What is a hydrograph and how is a flow duration curve prepared? 6

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5. a) Discuss various types of tariffs used for charging the consumers of electric energy. 7
b) Differentiate between fixed and operating costs of power plants. List the items which constitute the fixed and operating costs. 7
6. a) Discuss the problems of nuclear waste disposal. 7
b) Derive the expression for power factor improvement in the case of constant kW load. 7
7. a) Discuss automatic load dispatching in modern power system. 7
b) What are the necessary conditions under which power is transmitted through an interconnected two power stations? 7
8. Write short notes on any two of the following : 7 each
a) Cogeneration with topping cycle.
b) Geothermal power generation.
c) Short-term hydro-thermal coordination.

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