ROLL NO.	

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Max Marks: 80 | Max Time: 120 Mins | Weightage: 40 %

ENDTERM FINAL EXAMINATION

I Semester AY 2017-18 Course: **EEE211 ELECTRIC POWER GENERATION** 19 DEC 2017

Instructions:

i. Write legibly

ii. Scientific and non-programmable calculators are permitted

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Part A

[4 Q x 8 M= 32 Marks]

1. Define load factor and diversity factor. Explain the importance of each in a power plant operation
2. What is the significance of 2part tariff? What are fixed and operating costs?
3. With relevant schematic describe the working of a simple gas turbine plant
4. What do you mean by the term breeding? Explain the fuel process in breeder reactor 8marks

Part B

[2 Q x 12 M= 24 Marks]

5. A power plant supplies the loads having maximum demands of 40 MW, 50 MW and 30MW respectively. The load factor of the plant on the basis of annual load curve is 60% and the diversity factor of the load is 1.2.Determine i) the maximum load on the power plant ii) The capacity of the power plant required to take the loads, iii) Annual energy supplied by the power plant.
6. Draw a neat diagram of nuclear reactor and explain the functions of different components

Part C

[2 Q x 12M= 24 Marks]

7. A single phase 400V 50Hz motor takes a supply current of 50amp at a pf of 0.6 lagging .The motor pf has been improved to 0.9 lagging by connecting a condenser in parallel. Calculate the capacity of the condenser required.
8. A generating station has a minimum demand of 35500KW and has a connected load of 65MW. The number of units generated annually are 25.6×10^7 .Calculate the load factor, demand factor

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Max Marks: 40 Max Time: 60 Mins Weightage: 20 %

TEST 2

I Semester AY 2017-18 Course: **EEE211 Electric Power Generation** 26 OCT 2017

Instructions:

i. Write legibly
ii. Scientific and non-programmable calculators are permitted

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Part A

1. Draw pumped storage hydro plant and list the advantages. (8 Marks)

2. What factors are considered in selecting a site for a thermal power plant? (8 Marks)

Part B

3. What is the necessity of coal storage in Thermal power plant? (6 marks)

4. Why ash and dust handling problem is more difficult than coal handling problems? (8 Marks)

Part C

5. Draw the layout of the Diesel power plant and name each component (10 Marks)

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Max Marks: 20 | Max Time: 60 Mins | Weightage: 20 %

TEST 1

V Semester 2017-2018 | Course:**EEE211** **Electric power generation** | 18 SEPT 2017

Instructions:

i. Write legibly
ii. Scientific and non-programmable calculators are permitted

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Part A

What are the factors to be considered while selecting the site for Hydroelectric plants 6 Marks)

Part B

Discuss on the process and benefits of 'Cogeneration' (4 Marks)

Run-off river hydroelectric plants with pond can be used as peak load plant. Justify (4Marks)

Part C

Draw the block diagram of solar power generation plant. Briefly explain (6Marks)