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C14-EE -**403**

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BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DEEE - FOURTH SEMESTER EXAMINATION

POWER SYSTEMS - I (GENERATION)

Time: 3Hours

Max.Marks:80

PART-A

10x3=30M

Instructions: 1) Answer **all** questions. Each question carries **three** marks.
2) Answer should be brief and shall not exceed five simple sentences.

- 1) State the necessity of developing non conventional method of Power Generation.
- 2) State the Advantages of Pulverisation of Coal.
- 3) State the function of Super heater and Economiser in Thermal Power Plant.
- 4) State the need of Surge Tank and Spill gates.
- 5) List the requirement for setting up of Hydro Electric power plant.
- 6) State Nuclear Fission and Fusion.
- 7) State the merits of using Nuclear Energy.
- 8) State the importance of Renewable Energy Sources.
- 9) State the merits of integrated operations of power Stations.
- 10) Define Diversity Factor and Load Factor.

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[Contd...]

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PART-B

5x10=50M

Instructions: 1) Answer any **five** of the following. Each question carries **ten** marks.

2) Answer should be comprehensive and the criteria for valuation is the content but not the length of the answer.

- 11) Draw in detail the line diagram of condensing type Thermal Power Station.
- 12) (a) State any five factors for selection of site to thermal power plant.
(b) State any five limitations of non-conventional energy sources.
- 13) Explain the Working of Low head hydro electric power station with layout diagram.
- 14) Explain the working of moderate type Nuclear power plant with block diagram.
- 15) State the different considerations for site selection for installing Wind mill.
- 16) Explain the working of Solar air heater with legible sketch.
- 17) Explain various types of consumer Tariffs and compare them.
- 18) The daily load of a factory is 100KW for first 2 hours, 80KW for next 5 hours, 50KW for next 8 hours, and 10kW for remaining time. If the tariff is Rs. 500/kW of Maximum demand per annum plus Rs. 2.00 per kWh. Find electricity bill per year.

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