



C09-EE-403

3475

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DEEE - FOURTH SEMESTER EXAMINATION

POWER SYSTEMS - I

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Classify the sources of energy.
2. Define pulverization.
3. Classify hydroelectric power stations.
4. List out any four merits of nuclear energy.
5. List the charges and expenses incurred in power stations.
6. Define load factor.
7. List the types of faults that occur in power systems.
8. Classify relays.
9. List the faults occur in transformers.
10. List the causes of excessive heating in the stator and rotor of an alternator.

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the factors affecting the selection of site for thermal power station.
12. Explain the working of any one type of hydroelectric power station.
13. (a) Explain the working of forebay in hydroelectric power station.
(b) Explain the working of control rods in nuclear power station.
14. Explain the working of nuclear power station.
15. Explain any three types of consumer tariffs.
16. Explain the working of minimum oil circuit breaker.
17. Explain the working of impedance relay.
18. Explain the protection scheme of transformer with Buchholz relay.

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