

1391**Code : 15ME63B***Register
Number*

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VI Semester Diploma Examination, April/May-2020**POWER PLANT ENGINEERING****Time : 3 Hours]****[Max. Marks : 100**

- Instructions :** (i) Answer any **six** questions from Part – A.
(ii) Answer any **seven** questions from Part – B.

PART – A

1. State the various factors considered for location of power plants. **5**
2. List three advantages and two disadvantages of hydro-electric power plants. **5**
3. Sketch and label the pumped storage type hydraulic power plant. **5**
4. List the various coal handling methods. **5**
5. List any five effects of nuclear radiation on environment. **5**
6. Explain open cycle gas turbine power plant. **5**
7. State the advantages and disadvantages of wind power plant. **5**
8. List any five factors affecting the distribution of wind energy. **5**
9. List the methods to control global warming power plants. **5**



PART - B

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| 10. | Sketch and Explain the storage River plant and pumped storage plant. | 10 |
| 11. | Explain with neat sketch the Governing of impulse turbine. | 10 |
| 12. | (a) Sketch and Explain the general layout of Thermal power plant. | 6 |
| | (b) Explain method used for Coal Storage System. | 4 |
| 13. | (a) Explain with neat sketch, Electro Static Precipitation (ESP system) | 7 |
| | (b) Classify fuel firing. | 3 |
| 14. | (a) Explain with neat sketch, boiling water Reactor. | 8 |
| | (b) State the function of following components of gas turbine : | 2 |
| | (i) Compressor | |
| | (ii) Combustion chamber | |
| 15. | (a) Choose the various methods involved in disposing of Nuclear Wastes. | 7 |
| | (b) Explain briefly natural and artificial radio activity. | 3 |
| 16. | (a) Sketch and Explain a layout of diesel power plant. | 7 |
| | (b) List the types of rotors Horizontal Axis Wind Turbine (HAWT). | 3 |
| 17. | (a) Explain Maximum Power Point Tracker (MPPT). | 7 |
| | (b) Explain briefly Solar cells. | 3 |
| 18. | Explain Acid Rain, Acid Snow and Acid Fog. | 10 |
| 19. | (a) Explain with neat Sketch, Wind Energy Conversion System (WECS). | 6 |
| | (b) Explain measures to be taken by Power Plants to avoid noise pollution. | 4 |