


 U.S.N

--	--	--	--	--	--	--	--	--	--

P.E.S. College of Engineering, Mandya - 571 401
 (An Autonomous Institution affiliated to VTU, Belagavi)
Fourth Semester, B.E. - Electrical and Electronics Engineering
Semester End Examination; May / June - 2018
Power Plant Engineering

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

- 1 a. With a neat schematic diagram, explain the general arrangement and operation of a hydro-electric plant. 10
- b. Write a brief note on hydro power station structure and control. 10
- 2 a. With a neat schematic diagram, explain the working of a stream power plant. 10
- b. Explain the coal handling and Ash disposal schemes for thermal power plant. 10

UNIT - II

- 3 a. With a neat diagram, explain heavy water cooled and moderated reactor (CANDU) and fast breeder reactor. 10
- b. Write a brief note on safety of nuclear power station and disposal schemes of nuclear waste. 10
- 4 a. With a neat diagram, explain the plant layout and maintenance of diesel electric station. 10
- b. Write a brief note on choice and characteristics of diesel station. 10

UNIT - III

- 5 a. Write a brief note on classification of tidal power plants. 10
- b. With a neat schematic diagram, explain geothermal power plant. 10
- 6 a. With a neat diagram, explain wind energy conversion system (WECS). 10
- b. With a neat schematic diagram, write a note on Gas turbine Power Plant. 10

UNIT - IV

- 7 a. Write a brief note on, load duration curve, plant utilization factor and plant use factor. 10
- b. Write a brief note on types of tariffs. 10
- 8 a. Define power factor. Explain the disadvantages of low power factor and causes of low power factor. 10
- b. Write a brief note on location of power factor correction equipment and advantages of power factor improvement. 10

UNIT - V

- 9 a. Write a brief note on: i) Ungrounded system ii) Resonant Grounding. 10
- b. What is Neutral grounding? What are the merit and demerits of neutral grounding? 10
- 10a. With a neat schematic diagram, write a note on earthing transformer. 10
- b. What are the main Neutral grounding practices? Write a note on solid grounding. 10