

B.E. Electrical (Electronics & Power) Engineering (Model Curriculum) Semester-V  
**TE102A - Power Plant Engineering**

P. Pages : 2

Time : Three Hours



**GUG/W/23/13863**

Max. Marks : 80

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- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.
  4. Illustrate your answers wherever necessary with the help of neat sketches.
  5. Use of programmable calculator is prohibited.
  6. Don't use red pen for writing the answer.
  7. Don't write any other comments except answers of questions.

1. a) Explain the method of depreciation of charges. **8**
- b) State and explain the various types of energy sources used in generating electrical energy. **8**

**OR**

2. a) What is load curve? What information is obtained from load curve? **8**
- b) State and explain terms: **8**
  - i) Diversity factor.
  - ii) Group diversity factor.
  - iii) Peak diversity factor.

3. a) State and explain main and auxiliary equipment's of thermal power plant. **8**
- b) Draw and explain flue gas flow system with necessary equipment's. **8**

**OR**

4. a) State and explain advantages and disadvantage of using pulverized coal in modern thermal power plant. **8**
- b) State and explain coal handling unit thermal power plant. **8**
5. a) State and explain the applications of diesel power plant. **8**
- b) Explain in brief about two stroke engine and four stroke engine. **8**

**OR**

6. a) State and explain the different equipment's of diesel power plant. **8**
- b) Explain in brief about the working principle of diesel power plant. **8**

7. a) Explain the generalized parts of Nuclear power plant. **8**
- b) Explain the factors that considered for site selection nuclear power plant. **8**

**OR**

8. a) State and explain the advantages and disadvantages of Nuclear power plant. **8**
- b) Explain in brief about the Nuclear fission and chain reaction refers to nuclear power plant. **8**
9. a) Explain in brief about the generators used for cooling purpose in production of power in power plants. **8**
- b) Discuss the production of electrical energy through Tidal energy and state its advantages. **8**

**OR**

10. a) Explain in brief about solar energy with various applications. **8**
- b) Explain transformer in power plants with its various applications with neat suitable diagram. **8**

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