

B.Tech. Electrical Engineering (NEP) Semester-I  
**STPCCMEC104 - Basics Electrical Acts & Safety Regulation**

P. Pages : 1

Time : Two Hours



**GUG/S/25/16159**

Max. Marks : 40

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- Notes : 1. All questions carry equal marks.  
2. Draw neat and clean descriptive diagram wherever required.

1. A) Differentiate AC and DC Power Supply System? Also draw the single line Diagram where 3 phase 3 wire system converted to 3 phase 4 wire system? 4  
B) Write down the working principle of major electrical equipment? 4  
**OR**
2. A) Draw and Explain The typical AC supply system with single line Diagram? 4  
B) Write down the components of distribution system and explain distribution system? 4
3. Explain the main silent feature of Indian electricity act, 2003, related to generation, Transmission & distribution? 8  
**OR**
4. A) What is the purpose of Distribution license means? 4  
B) What are the responsibilities of state load dispatch centre? 4
5. A) What are the objectives of safety studies & safety Measure? 4  
B) List the various hazard associated with Electrical plants& equipment? 4  
**OR**
6. A) State the causes of following 4  
i) Electric fire ii) Electric shock  
B) Explain the First aid cardiopulmonary resuscitation (CPR) after electric shock? 4
7. A) Explain the effect of lightening current on installation & building? 4  
B) What are the four classification of voltage levels? 4  
**OR**
8. A) What should be considered when assessing the need for lightening protection. 4  
B) Explain the lightening arrester protection system? 4
9. A) Explain the difference between the grounded & and guarded system? 4  
B) Explain the Advantages of different types of earthing system? 4  
**OR**
10. A) Explain the Electrical earthing system & it's types? 4  
B) Explain the importance of earthing in installation of any equipment in electrical? 4

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