

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

P. Pages : 2

Time : Two Hours



**GUG/W/24/16159**

Max. Marks : 40

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

1. a) Draw and explain the single line diagram for DC supply system? And explain classification of DC Supply system? 4

b) Draw and explain the typical AC supply system with single line Diagram? 4

**OR**

2. 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 following laws? 4  
i) Kirchhoff's first and second law  
ii) Faradays first and second law.

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 explosion.  
iii) 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

