

S.B. Roll No.....

**BASIC ELECTRICAL ENGINEERING**  
**2<sup>nd</sup> Exam/ECE/Mechatronic/0961/Feb'2021**  
**(For 2018 Batch onwards)**

**Duration: 1.15Hrs.**

**M.Marks:25**

**SECTION-A**

**Q1. Attempt any three questions.**

**3x5=15**

- i. What are solar cells? Write its applications.
- ii. Difference between A.C and D.C?
- iii. State ohm's law. What are the limitations of ohm's law?
- iv. State kirchhoff's current and voltage law?
- v. Discuss various causes of low power factor.
- vi. Define resistance. On which factors resistance depends discuss.
- vii. What is a constant voltage source? Explain it graphically.

**SECTION-B**

**Q2. Attempt any one question.**

**1x10=10**

- a. State and explain Norton's theorem.
- b. Explain the construction and working of lead acid battery.
- c. Discuss comparison between magnetic and electric circuit.
- d. Explain with block diagram of thermal power plant.