

**BT-2/JX****8274****Electrical Technology****Paper : EE-101E**

Time : Three Hours]

[Maximum Marks : 100

**Note :-** Attempt at least **ONE** question from each Unit. Attempt **FIVE** questions in all. All questions carry equal marks.

**UNIT-I**

1. (a) Explain ohm's law. 10
- (b) Explain Kirchoff's laws. 10
2. (a) Explain average value of an ac waveform in general and find out average value of a sinusoidal wave. 10
- (b) Explain behaviour of pure inductance in ac circuit. 10

**UNIT-II**

3. (a) Explain Thevenin's theorem. 10
- (b) Explain Superposition theorem. 10
4. Explain series resonance in detail. 20

**UNIT-III**

5. Explain balanced star circuit. Explain relation between phase and line voltages and currents. 20
6. Explain phasor diagram of actual transformer on load for different types of load. 20

**UNIT-IV**

7. Explain different types of dc generators. 20
8. Explain working principles of three phase induction motor and three phase synchronous motor. 20