

## Unit III: Assessment: Q & A (Selected)

### Lecture 40

1. Define the following terms wrt to three phase system:

- i) Phase Sequence
- ii) Phase Voltage
- iii) Phase Current
- iv) Line Voltage
- v) Line Current
- vi) Balanced System

**Solution:**

**1. Phase Sequence:** The sequence in which the voltages in the three phases reach maximum positive value is called the Phase sequence .

**2. Phase Voltage:** The Voltage induced in each winding is called the phase voltage.

**3. Phase Current:** The current flowing through each winding is called the phase current.

**4. Line Voltage:** The Voltage available between pair of terminals or lines is called the Line voltage.

**5. Line Current:** The current flowing through each line is called the Line Current.

**6. Balanced System :** A three-phase system is said to be balanced if the

(a) voltages in the three phases are equal in magnitude and differ in phase from one another by  $120^\circ$

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(b) currents in the three phases are equal in magnitude and differ in phase from one another by  $120^\circ$

(c) loads connected across the three phases are identical, i.e., all the loads have the same magnitude and angle.