



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME : 19EE01 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING

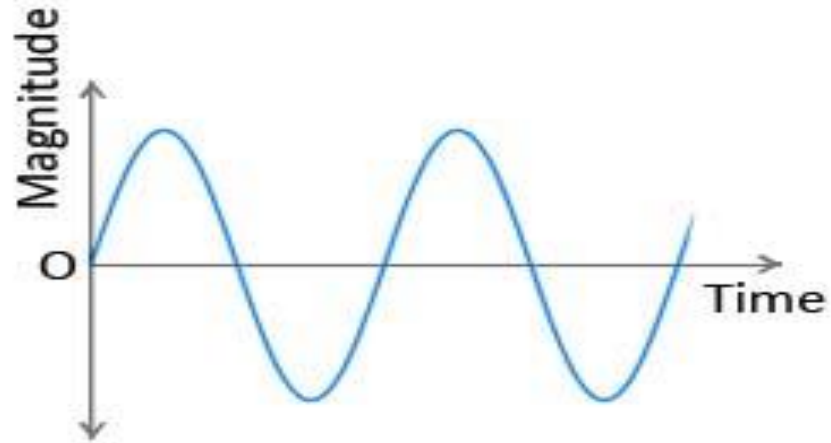
I YEAR /I SEMESTER MECHANICAL ENGINEERING

Unit 1 – Electrical Circuits and Measurements

AC & DC Circuits



AC CIRCUITS



Alternating Current

AC is a sinusoidal in nature which have frequency in its signal

$$\text{Frequency } F = (1/T)$$

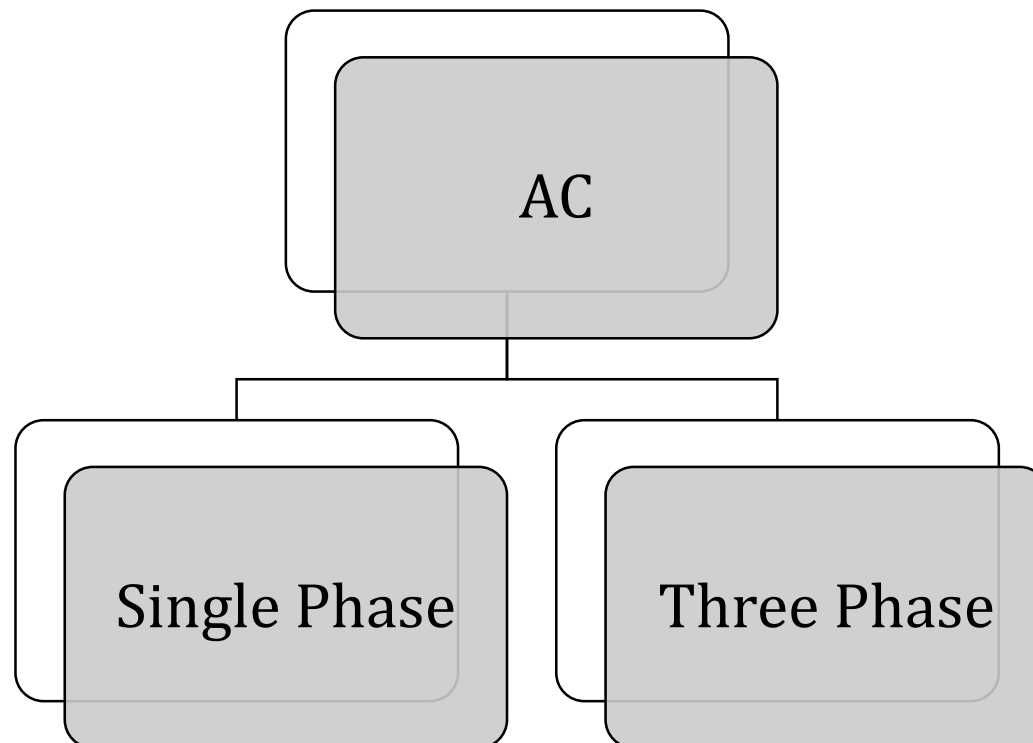
V- Voltage

I- Current

Z- Impedence

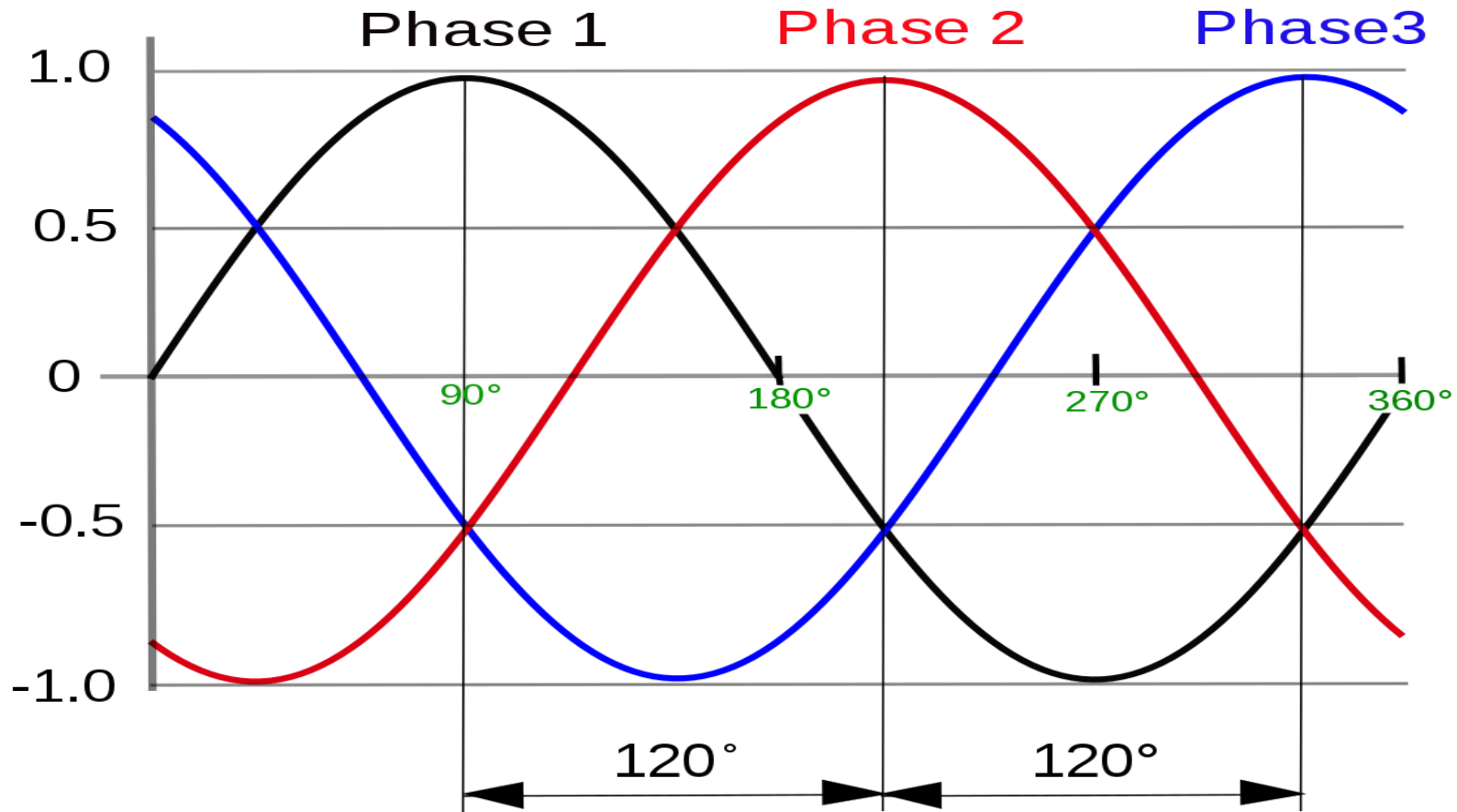


TYPES OF AC





THREE PHASE SUPPLY





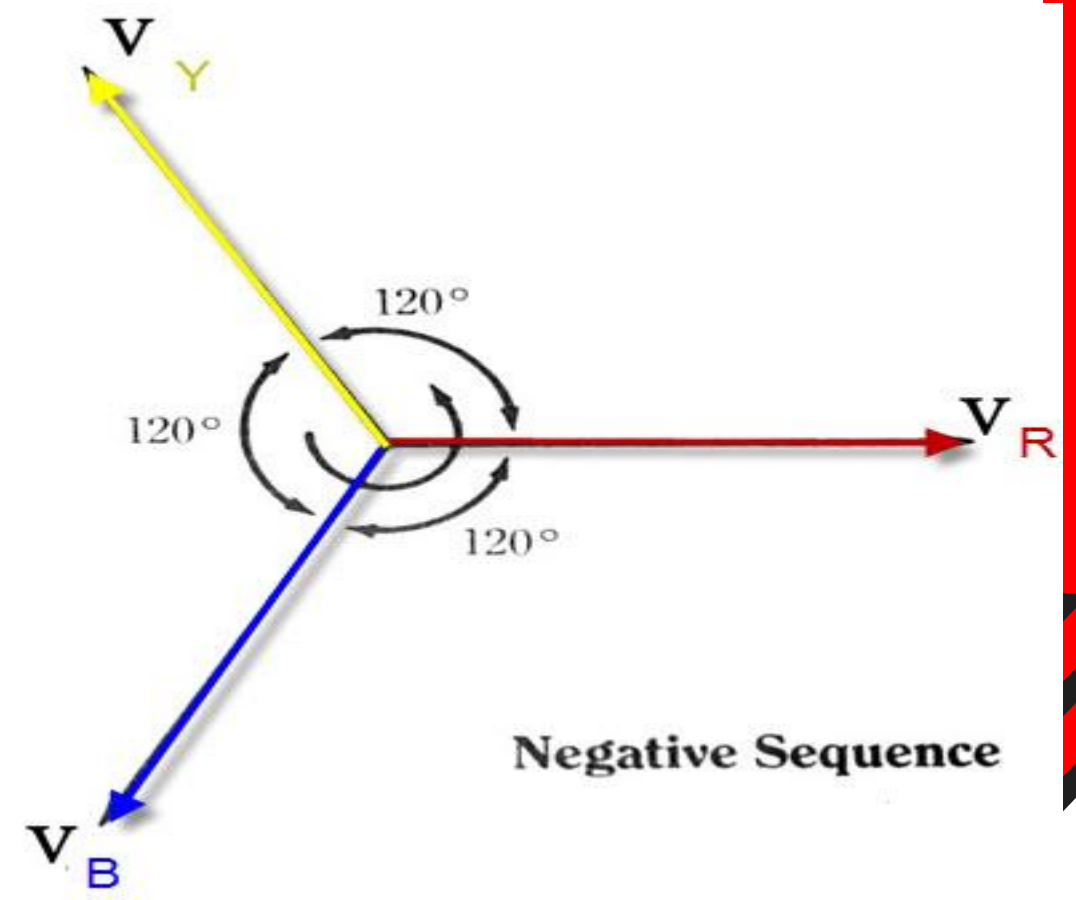
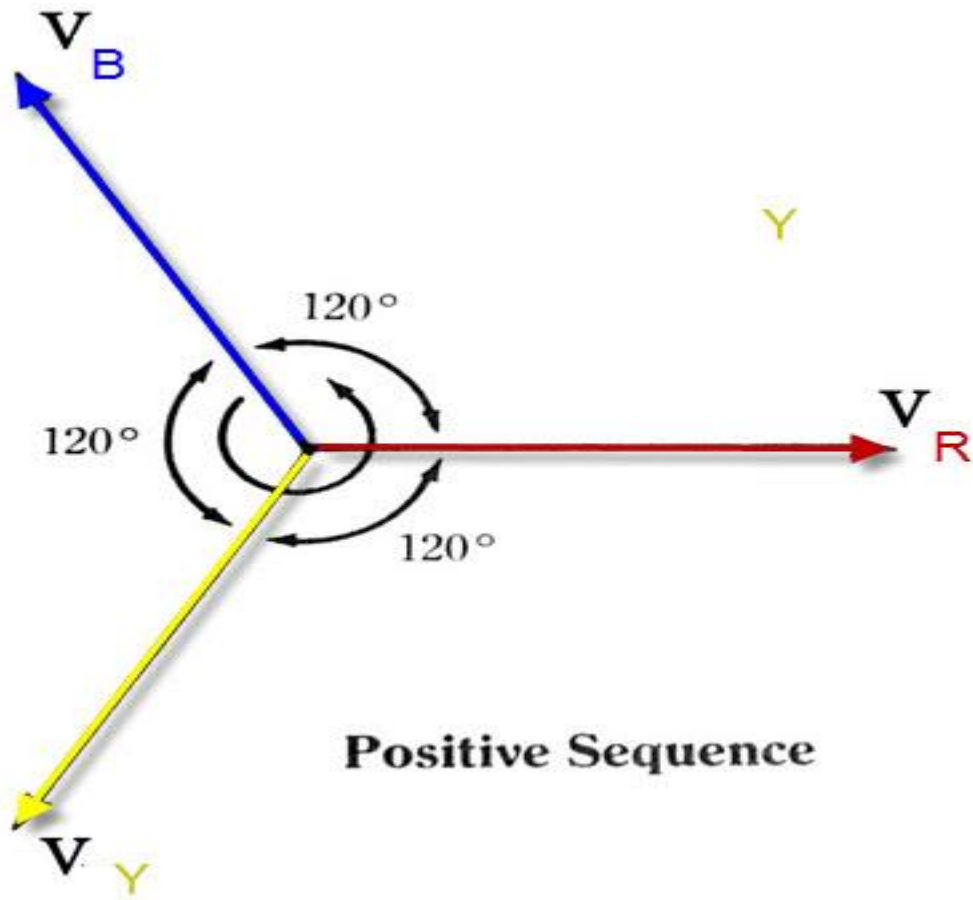
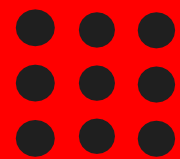
ADVANTAGES OF THREE PHASE SUPPLY

- More power
- Smaller in size with higher capacity
- Self starting
- P.f and efficiency
- More economical



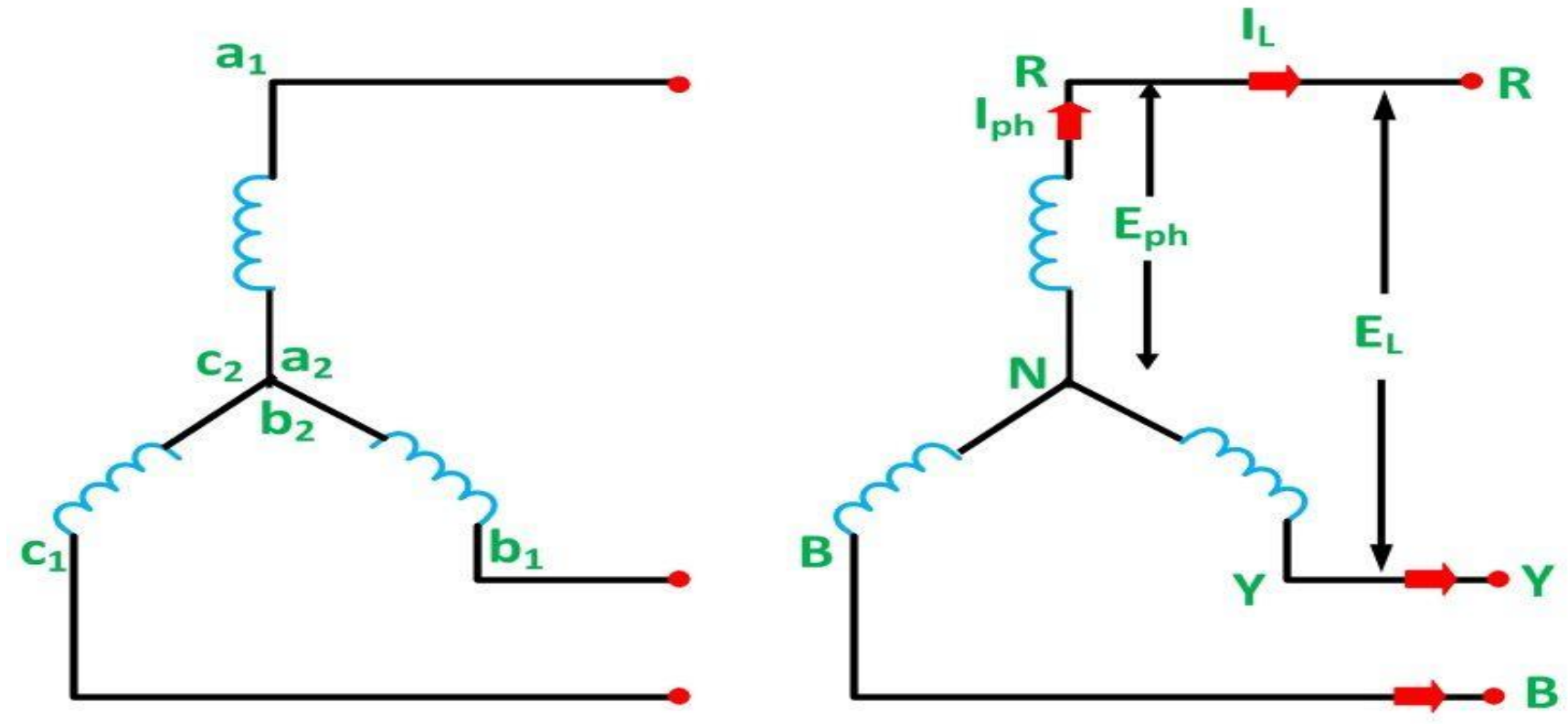


AC & DC

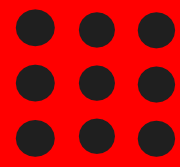




Star connection

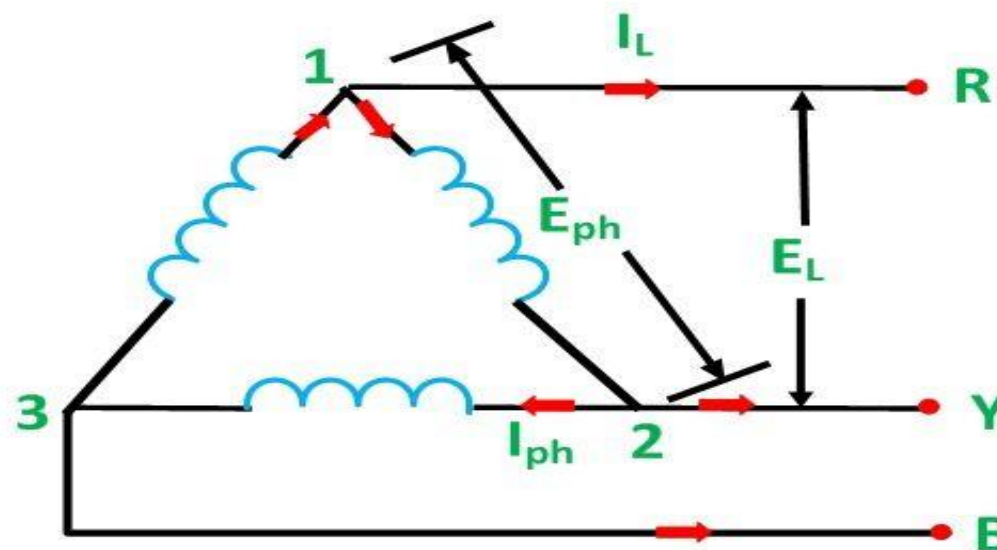
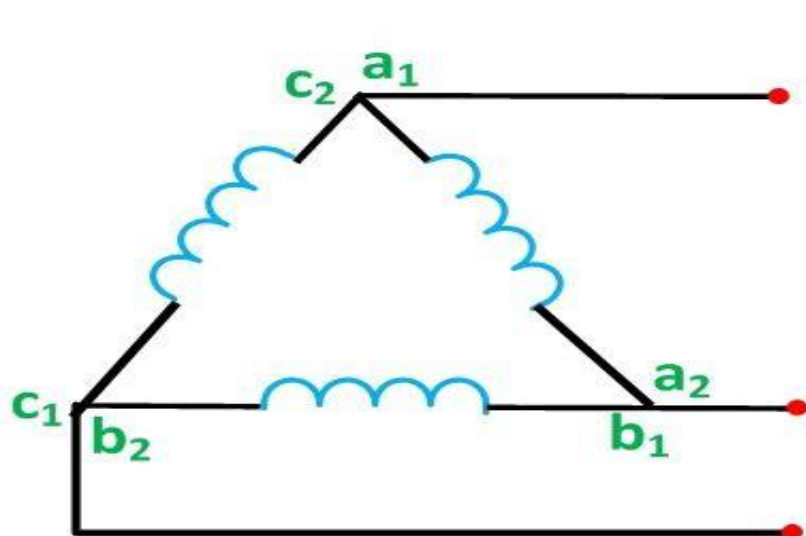


Circuit Globe





Delta connection



Circuit Globe

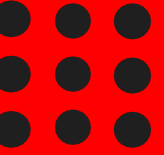


DC



DC source is Direct current where the frequency is zero

I-Current
V-Voltage
R-Resistance





REFERENCES

1. Bhattacharya. S.K, “Basic Electrical and Electronics Engineering”, Pearson Education , (2017)
2. Muthu Subramanian R, Salivahanan S,“ Basic Electrical and Electronics Engineering”, Tata McGraw Hill Publishers, (2009)
3. V.Mittle“ Basic Electrical Engineering”, Tata McGraw Hill Publishers, (2017)
4. Nagrath. I.J, “Electronics: Analog and Digital”, Prentice Hall India Pvt. Ltd., (2013)

THANK YOU