ROLL NUMBER

SRINIX COLLEGE OF ENGINEERING

SECOND INTERNAL EXAMINATION-2021-22

Subject-**BASIC ELECTRICAL ENGINEERING**   Semester-**1**[st]   Branch-**SEC-A**

Full Mark-**100**   Time-**2.30Hrs**

ANSWER ALL THE QUESTIONS (PART-A)   [2X10=20]

1. What is permeability?

2. Define Resistance and its unit.

3. Define peak factor.

4. How the power factor can be calculated by two wattmeter method.

 5. Define phage voltage and phage current.

6. State thevenins theorem?

7. Convert polar to rectangular   form 10<35

8. Explain ohms law and mention the limitation of ohms law.

9. Define Biot savarts law.

10. Write down the EMF equation of DC motor.

ANSWER ANY EIGHTQUESTIONS (PART-B)   [6X8=48]

1. State and explain superposition theorem.
2. State difference between magnetic circuit and Electric circuit.
3. Explain the construction and principle of induction motor.
4.A generator supplies a variable frequency of voltage150v in series RLC having R=10ohm, L=5mh, c=0.15micro farad, find out inductive reactance, capacitive reactance, resonance frequency& voltage drop each element.
5. What is hysteresis loop; explain with the help of diagram.
6. State and explain Norton's theorem.
7. Explain self inductance and mutual inductance with suitable diagram
8. Explain different type's magnetic material
9.what is star and delta connection and convert star to delta connection.

ANSWER ANY TWO   QUESTIONS (PART-C)   [16X2=32]

1. State and explain working principle is DC motor and explain different types of dc motor and its application different motor.

 2. With a neat circuit and phasor diagram explain the 3-phagepower measurement by 1-wattmeter method and 2-wattmeter method and also derive the expression for power factor..

3. (a) Define the venin theorem and explain in the steps with proper diagram.

   (b)Discus the principle and operation of 1-phage transformer and its types.