ROLL NUMBER ☐☐☐☐☐☐☐☐☐☐

SRINIX COLLEGE OF ENGINEERING

1ST INTERNAL EXAMINATION-2021-22

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

Full Mark-**60**   Time-**2.00Hrs**

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

1. What is magneto-motive force (MMF) and its unit?
2. Define Reluctance and its unit.
3. Define RMS voltage.
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 rectangular to polar form 5+j10 and vector representation.
8. state ohms law and mention the limitation of ohms law.
9. Define magnetic flux density and its unit.
10. Write down formula for power in Star and Delta connection.

ANSWER Any Four QUESTIONS (PART-B)   [5X4=20]

1. An emf is represented by e=100sin100t is expressed in the ckt consist of40ohm resistor and 40 micro farad capacitor of 0.25 H inductance. Determine RMS value of current, power supply and power factor.
2. State difference between star and delta connection
3. Explain different between Electric circuit and magnetic circuit.
4. A series ckt has R=10ohm,L=50Mh and C=80micro farad and 220v, 50hz find impedance,current,power factor and voltage drop each element.
5. What is hysteresis loop, explain with the help of diagram.

ANSWER Any Two QUESTIONS (PART-C)   [10X2=20]

1. (a) How the power measurement by two wattmeter method. In a 3 phase balance load wattmeter read 2000watts and 500 watts ,find power factor of the ckt,
2. (b) A Delta connection balanced three load is supply , three phase,400Vsupply,if line current is 20 amp and power consumed by the load 10kw then find phase current, power factor, power consumed in star connection .

3. Define superposition theorem and explain in the steps with proper diagram

4. (a)Define Norton's theorem and explain in the step with proper diagram.

(b) A RC series circuit connected across an 240 V, 50HZ and the circuit consumes 1600w and current drawn by the circuit 10A, Find the impedance, power factor, X_C of the circuit.