REGD. NUMBER

SRINIX COLLEGE OF ENGINEERING

3rd INTERNAL EXAMINATION-2021-22

Subject-**Physics**   Semester-**1ST**   Branch-**SEC-B**

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

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

1. Distinguish between Longitudinal wave & Transverse wave ?
2. State Gauss Law in electrostatic in Integral form ?
3. What is Electric flux , On which factor the flux depend on it ?
4. What is Interference of light , Write the some condition of Destructive in interference.
5. State and Explain huygens principle?
6. State Braggs law of X-ray diffraction ?
7. What is the value of divergence of two vector field ?
8. State Gauss Law in magneto static ?
9. State Poynting theorom and Poynting vector ?

ANSWER Any Eight QUESTIONS (PART-B)   [6X8=48]

1. State and Explain laws of reflection ?
2. State Gauss Divergence and Stoke theorom ?
3. Explain LASER with some application of it ?
4. Define wave , write the wave equation for it ?
5. State Poynting theorom and Poynting Vector ?
6. Define lattice parameter of a cubic stucture ?
7. State and Explan Heisenberg uncertainty principle ?
8. Explain about the Newtons ring experiment ?
9. Define a divergence of a vector function ,write some physical significance of it ?
10. How interference produces different fringes, Explain?

ANSWER Any Two QUESTIONS (PART-C)   [16X2=32]

1. Derive an expression for fringes produced in the Fraunhofer diffraction in single slit experiment ?
2. Write the Time- independent Schrodinger equation in Differential form ?
3. Establish the differential equation of motion of a Simple Harmonic oscillation and find velocity and acceleration for it ?