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SRINIX COLLEGE OF ENGINEERING

1ST INTERNAL EXAMINATION-2021-22

Subject-**Physics**

Semester-1ST

Branch-**SEC-B**

Full Mark-**60**

Time-**2.00Hrs**

1-ANSWER ALL QUESTIONS (PART-A)

[2X10=20]

- Define Quality factor ?
- State Poynting theorem and Poynting vector ?
- A loaded bus is more comfortable than empty bus ,Explain ?
- Define amplitude, When the amplitude becomes high ?
- What type of Sources produces a plane wavefront ?
- Distinguish between In-phase & Out- phase oscillation ?
- State Gauss Law in electrostatic ?
- Explain about Reflection & transmission coefficient ?
- Define wavefront , what are the types of different wave front ?
- What are the characteristics of wave motion?

2-ANSWER Any Four QUESTIONS (PART-B)

[5X4=20]

- What is resonance & Define sharpness of Resonance ?
- Define Divergence of scalar field ,write some physical properties of it ?
- Prove Coulombs law in Electro static from Gauss law ?
- Explain about the Fraunhofer diffraction of single slit ?
- What is logarithmic decreament in case of DHM ?

3-ANSWER ANY TWO QUESTION (PART-C)

[10X2=20]

- Derive an expression for fringes width produced in the Youngs double slit experiment ?
- State and explain Maxwells electromagnetic equations ?
- Derive the differential equation of motion of a Damped Harmonic oscillation . Write the expression for velocity of it ?