SRI Y N COLLEGE (AUTONOMOUS) NARSAPUR DEPARTMENT OF PHYSICS 2017-2018

ADDITIONAL INPUTS

SRI Y N COLLEGE (AUTONOMOUS) NARSAPUR DEPARTMENT OF PHYSICS For 2017-2020 Batch ADDITIONAL INPUTS

SEMESTER - 1 PAPER - 1 - MECHANICS

- . Greens theorem.
- Gravitational potential and gravitational field

SEMESTER -2 PAPER -2 - WAVES AND OSCILLATIONS

- Sharpness of resonance.
- Transverse vibrations in a bar —wave equation and its general solution. Boundary conditions. free-free bar
- Velocity of ultrasonic in liquids by sear's method

SEMESTER - 3 PAPER - III - WAVE OPTICS

- Calculation of longitudinal chromatic aberration of a thin lens
- ❖ Astigmatism -- Curvature of field distortion.
- Non reflecting films
- Semi conductor laser -- Laser characteristics

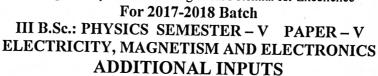
SEMESTER - 4 PAPER - IV - THERMO DYNAMICS & RADIATION PHYSICS

- Thermodynamic scale of temperature
- Characteristics of Ideal refrigerant
- Principle of refrigeration
- Vapour compression type refrigerator.



SRI Y.N.COLLEGE (AUTONOMOUS)-NARSAPUR (Affiliated to Adikavi Nannaya University)

Thrice Accredited by NAAC at 'A' Grade Recognized by UGC as 'College with Potential for Excellence'





- Electric Flux
- Polar and non-polar dielectrics in an electric field
- Magnetic Shell,
- Qualitative treatment,
- * Magnetic properties of dia, para and Ferro magnetic materials
- Langevins theory of para magnetism
- Weiss theory of Ferro magnetism
- Energy losses and efficiency.
- Construction of single phase ac motor,
- * Construction of single phase dc motor.
- ❖ Band theory of solids (qualitative) Intrinsic and extrinsic semi conductors.

III B.Sc.: PHYSICS SEMESTER - V PAPER - VI MODERN PHYSICS ADDITIONAL INPUTS

- . Bohr's atomic theory,
- Spectra of Hydrogen,
- Photoelectric effect-Einstein photoelectric equation.
- Stability of atom.
- . Limitations of old quantum theory.
- Particle in a box
- Application of Schrodinger wave equation to particle in three dimensional boxes.
- * Nuclear reaction,
- kinematics
- ❖ Calculation of Born coefficient and repulsive exponent. Born Haber cycle.
- Persistent current, isotopic effect.
- Semi conductor nano particles
- carbon nano clusters