

रेडियो अनुरक्षण अधिकारी (पदकोड-118)/रेडियो केन्द्र अधिकारी (पदकोड-119) हेतु पाठ्यक्रम  
विषय- भौतिक विज्ञान (स्नातक स्तर)

- Mechanics- vectors, gravitations- field and potential, conservation of energy, conservation of linear and angular momentum, electrostatics, magnetism, magnetic, properties of materials, electromagnetic induction, maxwell's equations and electromagnetic wave propagation.
- Optics- interference, diffraction, polarizations, associated optical instruments.
- Nuclear physics- basics of atomic and nuclear physics, radiation detection and monitoring devices- radiation quantities and units, radiation detection, elementary particles.
- Quantum mechanics- wave particle duality, origin of quantum theory, formalism of quantum mechanics, schrodinger equation- the first law of quantum mechanics.
- Solid state physics- crystal structure, elementary, lattice dynamics, magnetic properties of metter, dielectric properties of materials, elementary band theory.
- Thermal physics and statistical- thermodynamic description of system, thermodynamics potentials, kinetic theory of gases, theory of radiation, statistical mechanics.
- Basic electronics- network theorems , power supplies, solid state deveces, amplifiers, oscillators, Boolean algebra, logic gates, basics of special theory of relativity, consequences of Lorentz transformetions, dynanics of rigid body and idea of moment of inertia, fluids, elasticity.
- Waves, acoustics and oscillations- simple harmonic oscillations, damped harmonic oscillations , forced harmonic oscillations, applications, analysis of wave motions, ultrasonic, acoustics, application.
- Elements of modern physics.

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विषय- गणित (स्नातक स्तर)

- Matrices and determinants
- Trigonometry
- Vector analysis
- Differential calculus
- Integral calculus
- Coordinate geometry
- Algebra
- Differential equations
- Statics and dynamics
- Real analysis
- Complex analysis
- Linear algebra
- Numerical analysis
- Mathematical statistics.

