

Physics (Main Questions)

- 1) All numericals based on mirrors and lenses
- 2) All defects of vision (Myopia, Hypermetropia, Presbyopia, Astigmatism, Cataract) with their correction and causes.
- 3) Expression of resistances in series and parallel (Def. & Der.)
- 4) Laws of reflection and refraction (with diagrams)
- 5) Heating Effect of Current, Joules law of Heating & Applications of heating effect of current.
- 6) Define:- Principal axis, Focus, Optical Centre, Centre of curvature, Radius of Curvature, Pole, focal length.
- 7) Ohm's law and Ohm's law circuit/apparatus diagram. How can Ohm's law be verified experimentally (in laboratory)
- 8) Uses of Concave and Convex mirrors
- 9) S.I Unit of Current, Voltage (P.D), Power, Energy.
- 10) Dispersion of white light through prism, Formation of rainbow
- 11) Refractive Index def. & (Ref. index of different substances) like water, rock salt, Kerosene, Alcohol, diamond etc.
- 12) Sign Conventions of Mirrors & lenses.
- 13) Twinkling of Stars, Reddish color of sky at sunrise and set.
- 14) Focal length of mirror & its relation with Radius of curvature | Relation between Power & focal length of ~~mirror~~ lens.
- 15) Resistance & factors on which resistance depends.
- 16) Advantages of parallel circuit (Why is series arrangement not used for domestic circuits or Disadvantages of connecting different electrical devices in series)
- 17) Short circuit and Safety Devices (like fuse, MCB)
- 18) Symbols used in circuit
- 19) How will you prove current carrying conductor behave like a magnet.
- 20) How does Solenoid behave like a magnet (Electromagnet)