TS POLYCET 2024 Physics Answer Key with Questions

Q. Convex mirror is used as
Ans. Rear view mirror in automobiles

Q. Concave mirrors can produce
Ans. Both real and virtual

Q. The mirror which always gives diminished image (is)
Ans. Convex mirror

Q. The focal length of a concave mirror is 20 cm. At what distance the object is placed to obtain the virtual image?
Ans. Less than 20 cm

Q. The midpoint of a thin lens is called
Ans. Optic center

Q. A light ray passing along principal axis of a lens is
Ans. Undeviated

Q. In which one among the following cases the convex lens does not give a real image?
Ans. When the object is between focal point and optic centre

Q. A convex lens kept in a medium with refractive index less than the refractive index of the lens behaves like
Ans. Converging lens

Q. The focal length of double concave lens having refractive index 1.5 kept in air with two spherical surfaces of radii R 1 = 20 cm and R 2 = 80 cm is
Ans. 32 cm

Q. The formula for refractive index of a prism is
Ans. $n = \sin[(A + D)/2]/\sin(A/2)$

Q. The least distance of distinct vision of a healthy person is
Ans. 25 cm

Q. The focal length of a lens having power 4D is
Ans. 25 cm

Q. The defect in eye vision that people cannot see objects at long distance is
Ans. Myopia

Q. The process of an eye lens to adjust its focal length to form sharp image on retina is called
Ans. Accommodation

Q. The appearance of red colour of the Sun during Sunrise and Sunset is due to
Ans. Scattering of light

Q. The S.I. unit of electrical resistance is
Ans. Ohm

Q. Formula for specific resistance is
Ans. $\rho = RA/L$

Q. The current in a conductor is directly proportional to the potential difference between its ends at constant temperature. This is known as
Ans. Ohm's law

Q. Kirchhoff's junction law is based on conservation of
Ans. Charge

Q. The instrument to measure potential difference is
Ans. Voltmeter

Q. The tangent drawn to the magnetic field line at a point gives
Ans. Direction of the magnetic field

Q. The magnetic flux passing through unit area taken perpendicular to the uniform magnetic field is called
Ans. Magnetic flux density

Q. The direction of the magnetic field lines outside the current carrying solenoid is from
Ans. North to South

Q. In electric motors
Ans. Electrical energy is converted into mechanical energy

Q. Which law states "the induced current set up in the coil is in such a direction that it opposes the changes in the flux"?
Ans. Lenz's law

Q. Induction stove works on the principle of
Ans. Electromagnetic induction

Q. A conductor of length 'l' is moving perpendicular to magnetic field 'B' with a spee 'v'. The motional emf is given by
Ans. Blv

Q. The magnetic force exerted on a 3 m length conductor carrying 2A current when placed in a uniform magnetic field 0.4 T at an angle 30° is
Ans. 1.2 N

Q. Which one of the following statements is correct?
Ans. AC changes both its magnitude and direction