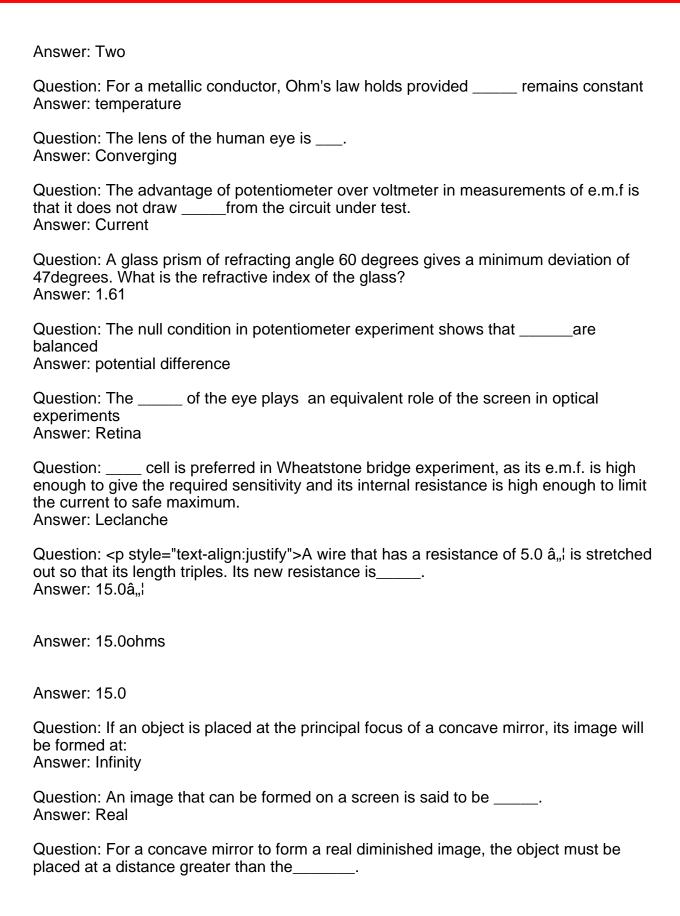
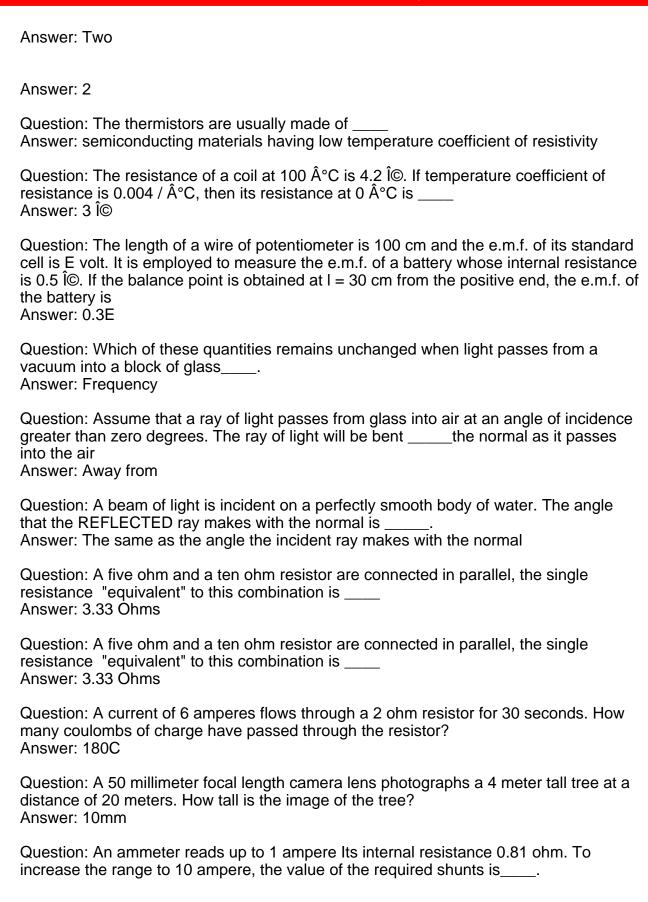
PHY192
Question: The intercept of a graph represented by is the reciprocal of Answer: Focal length
Answer: f
Question: In an experiment to determine focal length of a converging lens using the displacement method, a clear image of an object was obtained when the lens was placed at 20cm from a source that is placed at 80cm from a screen. Calculate the focal length of the lens, in cm. Answer: 15.0cm
Question: In a metre bridge, the balance is obtained at a point 25cm from one end of a wire 100cm long. The resistance to be tested is connected to that end and a standard resistance of 3.6â, is connected to the other end of the wire. What is the value of the unknown resistance, in â, i? Answer: 1.2â, i
Answer: 1.2
Question: When seeking the "nullâ€□ point, the key K should be closed before contact is made at the point of balance. This is done to avoid deflections due to Answer: induction effects
Question: Convex mirrors are mostly used as Answer: driving mirrors
Question: diopter is the unit of Answer: power of lens
Question: In an experiment, derived values such as those obtained from four figure tables should be recorded to at least decimal places Answer: 3
Answer: Three
Question: Which of the following remains unchanged when refraction occurs? Answer: Frequency
Question: The slide wire of the figure shown is balanced when the uniform slide wire AB is divided as shown. The value of the resistance X is Answer: 2



Answer: radius of curvature
Question: A virtual image is always : Answer: upright
Answer: Erect
Question: No parallax tells us that the two objects are Answer: Coincident
Question:is the apparent motion between an object and its image, situated along the line of sight, relative to each other in an experiment. Answer: Parallax
Question: A 10 ohm and a 20 ohm resistor are connected in parallel to a current source What fraction of the current flows through the 20 ohm resistor? Answer: 1/3
Question: An object is placed 15 cm in front of a convex mirror of focal length 7.5 cm. The image position behind the mirror is Answer: minus5 cm
Answer: -5cm
Answer: -5 cm
Question: A glass prism is made from transparent refracting medium with two refracting faces and a refracting edge of the prism. The two refracting faces give Answer: angle of prism
Question: A ray of light experiences a minimum deviation when passing symmetrically through an equilateral triangle. The angle of incidence of the ray for a glass of 1.5 refractive index is Answer: 490
Answer: 49degree
Answer: 49 degree
Question: A resistor of value R/2 is connected in parallel with a resistor of value R/3. The voltage drop across the parallel combination is V. The total current supplied by the voltage source is Answer: 5 V/R

Answer: 5V/R
Question: Resistivity of iron is 10- 7 Ω-m. The resistance of an iron wire is 1 Ω. If its diameter is halved and length doubled, the resistivity in Ω-m will be equal to Answer: 10- 7
Answer: 10^-7
Question: To get three images of a single object, one should have two plane mirrors at an angle of Answer: 90Ű
Answer: 90degree
Answer: 90 degree
Question: How many images will be formed when two plane mirrors are placed parallel to each other? Answer: One
Answer: 1
Question: A person having the nearest distance of distinct vision of 32 cm uses a reading lens of 8 cm focal length. The magnification of his reading lens is Answer: 5
Answer: Five
Question: The size of the image of an object, which is at infinity, as formed by a convex lens of focal length 30 cm is 2 cm. If a concave length of focal length 20 cm is placed between the convex lens and the image at a distance of 26 cm from the convex lens, the size of the new image will be Answer: 2.5cm
Answer: 2.5 cm
Question: If the length and diameter of a wire of circular cross section are both doubled, the resistance is Answer: Halved
Question: A mirror has only one focus, how many focus has a lens?



Answer: 0.09 Ω

Question: An electric clothes dryer is connected to a 100-volt source. How much

current does it use if it requires 2,000 watts of electric power?

Answer: 20A

Question: To create an enlarged real image using a concave mirror, the object must be

placed .

Answer: Between the center and the focus.

Question: A resistor of value R/2 is connected in parallel with a resistor of value R/3. The voltage drop across the parallel combination is V. The total current supplied by the

voltage source is:

Answer: 5V/R

Question: A 10 ohm and a 20 ohm resistor are connected in parallel to a current source.

What fraction of the current flows through the 20 ohm resistor?

Answer: 1/3

Question: A steady current flows in a metallic conductor of non-uniform cross-section.

Which of the following quantity is constant along the conductor?

Answer: Current

Question: A galvanometer of resistance 100 Ω is converted to an ammeter using resistance of 0.1Ω. It gives full scale deflection at 100 μA. The minimum current in the circuit for maximum deflection is

Answer: 100.1 mA

Question: A rigid container with thermally insulated walls contains a coil f resistance

100 Ω carrying current 1 A. Change in internal energy after 5 minutes isÂ

Answer: 30 kJ

Question: Which is NOT a characteristic of a series circuit?

Answer: The total resistance is the sum of the reciprocals of the individual resistances.

Question: A charge of 3 C experiences a force of 3000 N when it is moved in a uniform

electric field. What is the potential difference between two points separated by a

distance cm?Â Answer: 10 V

Question: A 20 ohm resistor and a 60 ohm resistor are connected in parallel to a voltage source. If the current in the 60 ohm resistor is one ampere, the current in the 20

ohm resistor will be:

Answer: 3A

Question: A virtual image always appears:

Answer: Erect

Question: You want to put up a mirror at a blind corner in a building. Which of the

following will give you the largest field of view?

Answer: Convex mirror

Question: A small hole in a sheet of aluminum foil is used to diffract yellow light both

under water and in a vacuum. Which is true?

Answer: light diffracts less in the water because its wavelength is smaller.

Question: Which one of the following is the advantage of connecting two dry cells in

parallel instead of in series? It is because the parallel arrangement:

Answer: Has half the internal resistance of a single cell

Question: By which one of the following can a real image be produced? Can it be

produced by a:

Answer: Concave mirror

Question: When white light passes through a red plate of glass and then through a

green plate of glass which one of the following things occur?

Answer: the light is totally absorbed

Question: The number of free electrons per unit volume in copper is n. The electrons each of charge q flowing with velocity v constitute current \hat{I}^{TM} . If A is the cross-sectional area of the wire, the current density in the wire is

area of the wire, the current density in the wire is

Answer: n q v/A

Question: If the change in resistance of a copper wire on stretching is 0.4 %, then its

length is stretched by

Answer: 0.2 %

Question: If an electron makes 25 \tilde{A} — 10¹⁵ rev / s around the nucleus of

an atom in an orbit of radius 1 A, the equivalent current is nearly _____.

Answer: 4 A- 10- 3 A

Question: A light ray traveling from glass into air strikes the glass-air surface at an angle 50 degrees to the normal. If the critical angle for the glass-air combination is 42

degrees, the percentage of light reflected from the surface is

Answer: 100

Question: Electric current may be expressed in which one of the following units?

Answer: Coulomb/second

Question: A beam of light travels obliquely from one medium into another medium of higher index of refraction. All of the following are true statements about the beam of

light EXCEPT:

Answer: Its wavelength decreases.

Question: Three resistors of 4 ohms each CANNOT be connected to give an equivalent

resistance that is close to____.

Answer: 0.75 Ohms

Question: A mirror has only one focus but a lens has _____.

Answer: Two