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Cbse class 12 physics practical viva questions with answers

What is the nature of mirrors used in this scenario?Answer: In this case, the mirror is a combination of types of mirrors. When do concave mirrors produce virtual images?Answer: Concave mirrors produce virtual when objects are positioned between the focal point and pole.117. What type of images do concave mirrors generate?Answer: Concave mirrors generate real and virtual images.115. Parallel rays converge at the focus of the convex lens.118. Go through the questions provided here for Class 12 Physics Viva 2025.Check | CBSE Date Sheet 2025CBSE Class 12 Physics Practical Exam Date 2025As per cbse.gov.in, the Class 12th practical exams will be conducted from January 1, 2025. What is specific resistance?Answer: Specific resistance, or resistivity, is the resistance offered by a material per unit length and unit cross-sectional area under an applied voltage. A secondary cell gives more electric current than a primary cell because a secondary cell possesses a very low internal resistance. Should ammeters have high or low resistance? At least one of its surfaces must be angled. What is the balanced condition of a Wheatstone bridge?The Wheatstone bridge is balanced when no current flows through the galvanometer. How is an ammeter connected in a circuit?An ammeter is always connected in series in the circuit. A steeper slope indicates a higher speed. How is a voltmeter connected in a circuit?A voltmeter is always connected in parallel with the component being measured. To draw the characteristic curve of a Zener diode and to determine its reverse breakdown voltage. A convex lens is used to treat which type of refractive error in the human eye?Answer: The convex lens is used to treat hypermetropia or long-sightedness.131. You can find sample questions in textbooks or online resources. Sometimes, they may provide hints or clues within the questions themselves. Focal Length of Spherical Lenses To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. Know about Physics WallahPhysics Wallah is an Indian edtech platform that provides accessible & comprehensive learning experiences to students from Class 6th to postgraduate level. Which type of lens is used in the human eye?Answer: Convex lenses are the lenses used in the human eye.138. Check | CBSE Topper Answer Sheet Class 12 What are the two types of spherical mirrors?Answer: The two types of spherical mirrors are convex mirrors and concave mirrors. What is the spherical mirror used in this experiment?Answer: A concave mirror is used in this experiment. What principle does the metre bridge follow?The metre bridge works on the principle of the Wheatstone bridge. Non-Ohmic conductors do not follow Ohm's law and examples are diodes and conductors ... Can the frequency of alternating current be found using the sonometer?Answer: Yes, the frequency of alternating current can be determined using a sonometer. Knowing the setup, apparatus, and procedures can help you answer questions confidently. Logical Reasoning: Be prepared to provide logical explanations for your observations and results. A secondary cell is a type of cell which can be recharged. Answer: The mirror formula is given by, 1/f = 1/v+1/u-f is the focal length-u is the object distance v is the image distance105. What is the working principle of a voltmeter?Answer: A voltmeter works on the principle that it must be connected in parallel with the circuit. Now that you understand the significance of viva questions, let’s explore how to prepare effectively: Comprehensive Revision: Start by revising the theoretical concepts related to the experiments thoroughly. Secondary cells are typically used in automobiles because they provide the needed large beginning current due to this cell’s relatively low internal resistance. Galvanometer, Ammeter and Voltmeter To determine the resistance of a galvanometer by half-deflection method and to find its figure of merit. Connecting it in series greatly reduces the current in the circuit, which can affect its operation. For example, a mobile battery supplies DC. Here’s why viva questions are so crucial: In-Depth Understanding: Viva questions demand a deeper understanding of the subject matter. Give an example of a substance whose resistance decreases as temperature increases.A semiconductor is a good example, as its resistance reduces when the temperature rises. What is a convex lens referred to as?Answer: A convex lens is also referred to as a converging lens.127. Why is Ohm’s law not applicable to semiconductors? What is a convex lens?Answer: A convex lens is a type of lens that is thicker at the centre and thinner at the edges. What is the unit of current?Answer: The unit of electric current is ampere (A). What material is used in a rheostat’s wire?Answer: The wire in a rheostat is usually made of constantan or manganin. Measurement of Electromotive Force and Potential Difference To compare the EMF of two given primary cells using a potentiometer. Give the number of refracting surfaces a lens possesses. In an Experiment Involving a Pendulum, You Notice That the Period (T) Increases as the Length (L) Increases. In the case of a cell, internal resistance depends on: nature of the electrolyte the concentration of the electrolyte nature of the electrodes distance between the plates temperature area of the plates inside the electrolyte Can a potentiometer be used to calculate the secondary cell’s internal resistance? Should the galvanometers possess a high or low resistance?Answer: Galvanometers should possess a low resistance. Does resistance depend on temperature?Answer: Yes, resistance increases as the temperature of the conductor rises. Emf is the potential difference across the terminals of a cell when no current is flowing. Understanding the underlying principles is key. Hands-On Experience: Revisit the experiments you’ve performed. What happens to the incident ray, which is an incident on a convex lens?Answer: A convex lens converges the incident rays towards the principal axis.134. What is the difference between potential difference and emf?Answer: Potential difference is the work done to move a unit charge between two points in a circuit. What is a sonometer?Answer: A sonometer is a device used to study the relationship between the frequency of sound produced by a plucked string and its length, tension, and mass per unit length. Why?Answer: The concave mirror is typically used for shaving. 6. 8. Give two general uses of concaveAnswer: Concave mirrors are extensively used by dentists and in solar cookers.114. Is a voltmeter used for measuring the e.m.f.? What is a prism?Answer: A prism is a transparent optical device with polished, flat surfaces that refract light. Is a semiconductor diode an ohmic or non-ohmic resistance?A semiconductor diode is a non-ohmic resistance. When light rays pass through the optical centre of convex lenses, what happens to the light rays?Answer: Light rays will pass through without deviating when it passes through the optical centre of convex lenses.119. To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same. Understanding the setup and procedure will boost your confidence during the viva. What is the ideal position of a body if you want to get an image of the same dimension in the case of a concave mirror?Answer: The body should be positioned at ‘C’ of a concave mirror in order to get an image of the same dimension.108. Explain This Phenomenon. This is mainly due to the fact the object is positioned between the focus and pole of the mirror. When is the metre bridge most sensitive?The metre bridge is most sensitive when all four resistors in the circuit have equal resistance. Check | CBSE Class 12 Deleted Syllabus 2025 Define a rheostat.Answer: A rheostat is a variable resistor with two terminals. Explain the type of image formed by the convex mirror.Answer: A convex mirror always creates only virtual images that are erect and diminished for all object positions.125. They evaluate your understanding of theoretical concepts, your ability to apply knowledge in a laboratory setting, and your communication skills. How does temperature affect resistance?Answer: As the temperature increases, the resistance of a conductor also increases. There is a high risk of short-circuiting if connected in parallel. What is the reason behind the null point? Does the refractive index affect the power of the lens?Answer: Yes, the refractive index is one of the factors that affect the power of the lens.145. Remember, viva questions aren’t designed to catch you off guard or intimidate you. An achromatic doublet can be used to fix chromatic aberration.141. The light is spread out or dispersed due to optical aberration rather than being focused on a certain fixed point. From providing Chemistry, Maths, Physics formula to giving e-books of eminent authors like RD Sharma, RS Aggarwal and Lakhmir Singh, PW focuses on every single student's need for preparation.What Makes Us DifferentPhysics Wallah strives to develop a comprehensive pedagogical structure for students, where they get a state-of-the-art learning experience with study material and resources. To verify the laws of combination (parallel) of resistances using a metre bridge. Can you explain complex concepts in a simple and coherent manner? Use Proper Terminology: Employ appropriate scientific terminology and units when responding to viva questions. A linear graph represents a direct proportionality between two variables. What is meant by a primary cell? It is measured in amperes and denoted by K. To verify the laws of combination (series) of resistances using a metre bridge. Which lens is used in the magnifier?Answer: The convex lens is used in the magnifiers.147. We also provide extensive NCERT solutions, sample paper, NEET, JEE Mains, BITSAT previous year papers & more such resources to students. What are the limitations of a Wheatstone bridge?A Wheatstone bridge becomes less accurate when measuring very low resistances because the resistance of leads and contacts affects the results. Be Attentive: Listen carefully to the examiner’s questions. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. The examiner won’t expect very lengthy replies but very crisp and concise answers. List two uses of a sonometer.Answer: A sonometer is used to determine the frequency of a tuning fork and measure the tension in a string. Is the convex lens’s focal length taken as negative or positive?Answer: The convex lens’s focal length is taken as positive because it converges light rays. What material is used to make the wire in a metre bridge?Materials like nichrome, constantan, or manganin are used because they have high resistance and a low temperature coefficient, meaning their resistance doesn’t change much with temperature. Why Does This Occur? It is often caused by friction. Optical aberration is an unwanted property of the lens, and by using a grouping of lenses rather than using a single piece of the lens, it can be eliminated.139. What is the radius of curvature of a concave mirror?Answer: The radius of curvature is the radius of the sphere from which the concave mirror is derived. These viva questions are designed to assess not only your theoretical knowledge but also your ability to apply that knowledge in a practical setting. How is a galvanometer converted into (a) a voltmeter and (b) an ammeter?Answer:(a) To convert a galvanometer into a voltmeter, a high resistance is connected in series with it.(b) To convert it into an ammeter, a low resistance is connected in parallel with it. Why is an ammeter always connected in series?Answer: Since the internal resistance of an ammeter is low, it is always connected in series. With our affordable courses like Lakshya, Udaan and Arjuna and many others, we have been able to provide a platform for lakhs of aspirants. What do you mean by a galvanometer’s figure of merit?Answer: A galvanometer’s figure of merit is the electric current needed to generate a one-division deflection in the galvanometer. 5. One leg contains the unknown resistor. Practicing helps you refine your answers and build confidence. What is the principle of a potentiometer?The principle of a potentiometer states that the potential drop along a uniform wire carrying a steady current is directly proportional to the length of the wire. The resistance applied by the cell’s electrolyte is known as the cell’s internal resistance. To determine the refractive index of a glass slab using a travelling microscope. If not, it should be a concave lens.121. They can quickly go through them and revise what they have learnt throughout the year. On the galvanometer scale, why is zero placed in the middle?Answer: Zero is placed in the middle of the galvanometer since the galvanometer needle can deflect on both sides. What is static electricity?Answer: Static electricity occurs when positive and negative charges are separated, creating a build-up of charge on a surface. Which of the two devices will have better resistance?Answer: The milliammeter will possess better resistance. Viva questions serve as a bridge between theory and practice. What is an optical aberration?Answer: The property of the lens that causes blurriness or distortion during the formation of an image is known as an optical aberration. What is denoted by the symbol ‘R’ in a concave mirror?Answer: The radius of curvature is denoted by the symbol ‘R’ in a concave mirror.113. PW strives to make the learning experience comprehensive and accessible for students of all sections of society. Time Management: Manage your time wisely during the viva. Sometimes, they may provide hints or ask follow-up questions based on your initial response. A similar optical device with two parallel sides is not a prism. Answer: Ohm’s law states that the current flowing through a conductor is directly proportional to the voltage across it, as ... VIVA QUESTIONS FOR PHYSICS PRACTICALS For Class 12 With Answers. What is the unit of frequency of alternating current?Answer: The unit of frequency of alternating current is hertz (Hz). The sensitivity of the potentiometer rises with the increase in the wire’s length. The semiconductors are nonlinear devices, and this is the reason why Ohm’s law is not applicable to semiconductors. How is a galvanometer converted into an ammeter?A galvanometer is turned into an ammeter by connecting a low resistance wire (shunt) in parallel with it. Understand the ‘Why’: When responding to viva questions, don’t just focus on the “what.” Try to explain the “why” behind each step, observation, or result. What is electrical conductivity?Answer: Electrical conductivity measures how easily a material allows an electric current to pass through it. A well-organized presentation can make a positive impression. What is shunt resistance?Answer: Shunt resistance is a low-value resistance connected in parallel with an ammeter to extend its range or measure the load current when connected in series. Is Ohm’s law universal?Answer: No, Ohm’s law is not universal. How is a galvanometer converted into a voltmeter?A galvanometer is converted into a voltmeter by connecting a high resistance in series with it. When a concave lens is combined with a convex lens, what would be the quality of the image?Answer: A sharper image is formed when a concave lens is combined with a convex lens.136. In the case of all other locations, convex lenses produce real images.120. What are some examples of Ohmic resistance?Examples of Ohmic resistance include silver, aluminium, and copper. What is the reduction factor?Answer: The reduction factor is the current required to produce a 45° deflection in a tangent galvanometer. It converges on a straight beam of light.124. What is superconductivity?Answer: Superconductivity is a state where certain materials exhibit zero resistance when cooled below a specific temperature. The resulting image will be virtual and magnified.109. In a current-voltage graph for a resistor, the slope represents the resistance (R) of the resistor, according to Ohm’s Law (V = IR). Focal Length of Spherical Mirrors To find the value of v for different values of u in the case of a concave mirror and to find the focal length. Does resistance depend on the dimensions of the conductor?Answer: Yes, resistance depends on the length and cross-sectional area of the conductor. Due to chromatic aberration, a lens fails to focus all colours on the same point, and colourful fringes around an image can be observed due to chromatic aberration. Critical Thinking: You may encounter unexpected questions during viva sessions. This happens when the known and variable resistances are adjusted correctly. The null point is acquired because the cell’s e.m.f. is balanced by the potential variation along a particular length of the connected potentiometer wire. 7. The expected date for the CBSE Class 12 Physics practical will fall in the first and second week of January. Confidence Is Key: Approach the viva section with confidence. What is a potentiometer?A potentiometer is a device used to measure small potential differences accurately and compare the e.m.f of different cells. What are the two types of lenses generally used?Answer: The two types of lenses are concave lenses and convex lenses. Explain the Effect of Increasing the Number of Turns in a Coil on the Strength of an Electromagnet. In your Class 12 physics practical examinations, viva questions serve as a comprehensive assessment tool that goes beyond mere experimentation. What is the formula to calculate the percentage of error?Answer: The percentage of error is given by the formula: Percentage error=(DifferenceActual Value)×100% How is direct current different from alternating current?Answer: Direct current has a constant magnitude and flows in one direction, while alternating current varies in magnitude and direction periodically. What is the SI unit of resistivity?Answer: The SI unit of resistivity is ohm-metre (Ω·m). Which type of cells (primary cells or secondary cells) is employed in automobiles? Stay Composed: If you encounter a challenging question or draw a blank, take a deep breath and remain composed. Due to the low value, it has no considerable effect on the potential difference.Check: CBSE Class 12 Syllabus 2024-25 PDF CBSE Class 12 Sample Paper With Answer Key 2024-25 What can be the reason for one-sided deflection in galvanometers? What are some examples of non-ohmic resistance?Vacuum tube diodes and transistors are examples of non-ohmic resistance. If you don’t know the answer to a question, it’s okay to admit it. On what constraints does the cell’s internal resistance depend? What is the resistance value of ideal voltmeters?Answer: Ideal voltmeters have infinite resistance. They require you to explain the principles behind the experiments you’ve conducted, describe the apparatus used, and elucidate your observations and conclusions. It is used to measure the unknown resistance of a conductor. What is terminal voltage?Terminal voltage is the potential difference across a cell’s terminals when it is supplying current. Its high resistance ensures that the measured voltage is not affected. Confidence in your responses is essential. Define the power of the lens.Answer: The power of a lens is defined as the reciprocal of the focal length.129. viva questions in Class 12 physics practical exams are a means to assess your practical knowledge, problem-solving skills, and communication abilities. What kind of image is created by the convex lens?Answer: The convex lenses form real as well as inverted images of different sizes. These questions assess your analytical skills and your ability to draw meaningful conclusions from experimental data. What is a Wheatstone bridge?A Wheatstone bridge is a type of electrical circuit used to measure an unknown resistance by balancing two legs of the bridge circuit. Yes, the lesser the potential gradients, the higher will be the sensitivity. Confidence in your knowledge and preparation can go a long way in demonstrating your competence. What is a convex mirror?Answer: A convex mirror is defined as a spherical mirror that features an outwardly bulged reflecting surface.123. What is direct current (DC)?Answer: Direct current flows in a single direction with a constant magnitude. Increasing the number of turns in a coil enhances the strength of an electromagnet. Answer: If the given spherical lens produces a real sharp image of a faraway object, it is a convex lens. Which type of mirror always generates a virtual image?Answer: Convex and plane mirrors always generate virtual images. Practice Answering: Practice answering viva questions regularly. Is sensitivity impacted by potential gradients? Understanding the significance of viva questions and being well-prepared for them can significantly impact your overall score in the practical exams. Is a convex mirror a transparent or opaque object?Answer: A convex mirror is an opaque object.135. What is the aperture of a spherical mirror?Answer: The aperture is the diameter of the circular rim of the spherical mirror. It does not apply to semiconductors or materials at extremely low temperatures. To find the refractive index of a liquid by using a convex lens and plane mirror. When a convex lens is combined with a concave lens, what would be the quality of the image?Answer: A sharper image is formed when a convex lens is combined with a concave lens.146. In this section, we will explore viva questions that often focus on interpreting graphs and explaining observations made during experiments. Explain the Significance of the Slope of a Distance-Time Graph. Practice with a partner or a teacher for a realistic simulation. What is a voltmeter?Answer: A voltmeter is a device used to measure the potential difference or voltage between two points in an electrical circuit. Application of Knowledge: They evaluate your ability to apply theoretical knowledge to real-world scenarios. Ensure you can explain these concepts in simple terms. To study the characteristics of a common emitter npn (or pnp) transistor and to find out the values of current and voltage gains. This is due to the greater magnetic field produced by the increased current flow through the coil. This guide covers key theoretical concepts, practical experiments, and important physics applications to boost your confidence and performance in ... Students can also expect questions from the Class 12 Physics practical viva syllabus. What Does a Linear Graph Represent, and How Can You Identify Linearity? Direct current is widely used in applications that involve a battery and many household appliances. The primary cell’s e.m.f. may surpass that of the main circuit cell. Define the centre of curvature on a concave mirror.Answer: The centre of curvature is the centre of the sphere of which the concave mirror is a part, denoted by C. Understanding the “why” behind the “what” is often a key focus of viva questions. By preparing diligently and staying composed during the viva, you can excel in this important aspect of your physics practical examination. To find the resistance of a given wire using a metre bridge and hence determine the resistivity (specific resistance) of its material. What is the unit to measure electric current?Answer: Ampere is the unit used to measure the electric current. Here you will find viva questions for class 12 physics practicals. What is the correlation between the radius of curvature (R) and focal length (F) of a concave mirror?Answer: The relationship is given by F=R/2. 2. It is used to adjust the current flowing through a circuit. Ohmic conductors follow Ohm's law and examples include metals. Frequency of AC (Alternating Current) Mains To find the frequency of the AC mains with a sonometer. How is the lens power measured?Answer: Lens power is measured in dioptres (D).130. Define Ohm’s law.Answer: Ohm’s law states that the current flowing through a conductor is directly proportional to the voltage across it, as long as the temperature and other physical conditions remain constant. Define Ohm’s law. Why are connecting wires thick and covered with cotton?Answer: Thick wires have very low resistance, and the cotton covering prevents short-circuiting. Can you articulate your thoughts clearly and concisely? If a body is at infinity, where will the image be generated in the case of a concave mirror?Answer: The image will be generated at the focus point of the concave mirror if a body is at infinity.116. Instead, they aim to gauge your readiness to apply physics principles in real-world scenarios, just as you would in your future scientific endeavors. 104. What is the resistance value of ideal ammeters?Answer: Ideal ammeters have zero resistance. Semiconductor Diodes and Transistors To draw the I-V characteristic curve of a p-n junction in forward bias and reverse bias. Review Your Practical Work: Familiarize yourself with the experiments you’ve conducted. What is meant by a potential gradient?A potential gradient is the change in potential per unit length of the potentiometer wire. What is chromatic aberration?Answer: Dispersion is the reason why chromatic aberration occurs. Thus, prepare accordingly and do not involve yourself in explaining the whole concept. Why?Answer: Voltmeters should always possess a large resistance; if not, it will decrease the potential difference it is intended to measure. It won’t take much time but might help you get a 30/30 score in the practical exam. What is the use of a metre bridge?A metre bridge is used to measure the resistance of a resistor precisely. Which is the mirror typically used for shaving? What is the formula of Ohm’s law?Answer: The formula for Ohm’s law is: V=IRV Here, V is voltage, I is current, and R is resistance. To find the focal length of a convex mirror, using a convex lens. Thorough Revision: Before the exam, revisit the theoretical concepts related to the experiments you’ve performed. Stay Calm and Confident: During the viva, remain calm and composed. This practical approach is a fundamental aspect of physics. Precision in language can showcase your understanding. When does Ohm’s law fail? What are the types of mirrors?Answer: Types of mirrors are, Plane mirrors and Spherical mirrors133. A galvanometer is transformed into a milliammeter and an ammeter. Why?Answer: Ammeters should always possess a low resistance; otherwise, they will decrease the current it is intended to calculate. To find the focal length of a concave lens using a convex lens. What is wave optics in physics?Answer: The branch of optics that studies the phenomena for which the ray calculation of geometric optics is not valid, like interference, diffraction, polarisation, and others, is known as wave optics.144. Resistance is inversely proportional to the cross-sectional area of the material and directly proportional to the temperature and length of the material.Direct current is the current whose direction remains the same. Define the law of reflection for mirrors?Answer: The incident ray, the reflected ray and the normal all exist in the exact same plane.∠i = ∠r106. The administration will not delay this process further due to the 2nd pre-board and the CBSE board examinations.Check | CBSE Class 12 Pre-Board Question Papers (All Subjects)CBSE Class 12 Physics Top Viva Questions With AnswersBelow are the 100+ Physics viva questions for Class 12 students. Define focalAnswer: Focal length is the distance between the optical centre and the principal focus of the lens.134. If half of the concave lens is covered when focusing on a faraway subject, what will be the effect on the image produced?Answer: An image will be generated as normal, but the image intensity will be half the original.122. Chapterwise, Class 12 Physics viva questions with answers are given below for students to ... VIVA QUESTIONS FOR CLASS 12 PHYSICS . No, the voltmeter takes electric current from the cell. What is non-ohmic resistance?Non-ohmic resistance is resistance that does not follow Ohm's law. No, a secondary cell possesses very little internal resistance. Why doesn’t a plane mirror generate a real focus like a convex mirror?Answer: In a plane mirror, reflected rays do not converge; instead, they appear to diverge from a point, creating a virtual image. Communication Skills: Viva questions assess your communication skills. What is alternating current (AC)?Answer: Alternating current is a type of electrical current that changes its magnitude and polarity at regular intervals. Why does a secondary cell give more electric current than a primary cell of the identical e.m.f.? 1. The slope of a distance-time graph represents the speed or velocity of an object. 4. A galvanometer is known as the fundamental electrical measuring tool. Don’t spend too much time on one question; aim for a balanced distribution of time across all questions. What is the SI unit of potential difference?Answer: The SI unit of potential difference is volt (V). Hope this helps! CBSE BooksICSE BooksOLYMPIAD BooksFOUNDATION BooksJEE BooksNEET Books ➡ Click below titles to expand Announcements Join our Online NEET Test Series for 499/- Only for 1 Year Join Our Telegram ChannelJoin our Telegram Channel for Free PDF Download Get here CBSE class 12 physics top viva questions and answersPhysics Viva Questions Class 12: The Central Board of Secondary Education (CBSE) practical exams are about to start, and it's time for Class 12 students to start revising the viva questions. What is the main procedure to convert a galvanometer into a voltmeter? Answer: A galvanometer is usually changed into a voltmeter by joining a large resistance in series with it. What is electrical resistance? Which type of lens has a negative focal length?Answer: The concave lens is the lens which has a negative focal length.128. What is Ohmic resistance?Ohmic resistance is resistance that follows Ohm's law. How is the potentiometer’s sensitivity affected by the length of the wire? 3. It’s okay to ask for clarification or admit if you don’t know the answer. Define the pole of a concave mirror.Answer: The pole is the centre of the reflecting surface of the concave mirror, denoted by PPP. They assess whether you can grasp the concepts beyond just rote memorization. Erect, virtual, and enlarged images are formed based on the object’s position.126. What happens when parallel rays strike a convex lens? Experiment wise viva questions are provided with answers. What is the unit of resistance?Answer: The unit of electrical resistance is the Ohm (Ω). Why?Answer: A galvanometer is known as the fundamental electrical measuring tool because it is designed to measure voltage and current. What is the mirror formula? The top section is a concave mirror, the middle section is a plane mirror, and the bottommost section is a convex mirror.111. This phenomenon occurs because the period of a pendulum is directly proportional to the square root of its length ($T \propto \sqrt{L}$), as explained by the pendulum formula. Define ampere.Answer: An ampere is a unit of measure of the rate of electron flow or current in an electrical conductor. Are there positive and negative terminals in the galvanometer?Answer: There are no positive and negative terminals in the galvanometer. This means that for variations in voltage, the ratio of voltage to current doesn’t remain constant. What are the two main types of mirrors?Answer: Plane mirrors and spherical mirrors are the two main types of mirrors.112. Ensure you can explain these concepts clearly and concisely. During an Experiment, You Observe That the Ammeter Shows a Decrease in Current Over Time. Which lens is known as a diverging lens?Answer: A concave lens is known as a diverging lens.135. Should voltmeters possess low resistance or high resistance? In a Current-Voltage Graph, What Does the Slope Represent? What is total internal reflection?Answer: When the light rays travel from a more optically denser medium to a less optically denser medium, the phenomenon that happens is known as total internal reflection.142. The exact date for the Physics practical cannot be conveyed as it varies from school to school and the availability of the examiner. We believe in empowering every single student who couldn't dream of a good career in engineering and medical field earlier.Our Key Focus AreasPhysics Wallah's main focus is to make the learning experience as economical as possible for all students. The lens works on which principle?Answer: The lens works on the principles of refraction.137. Why is a convex lens used in cameras?Answer: A convex lens is used in cameras because it focuses light in order to create a clear and sharp image.132. Linearity can be identified by a straight-line relationship between the variables. What is meant by the e.m.f of a cell?The e.m.f of a cell is the maximum potential difference between its terminals when no current is flowing through the circuit. What is magnification?Answer: Magnification of the lens is basically the ratio of the linear size of the image to the linear size of the object.m = (linear size of the image/linear size of the object)140. These viva questions emphasize your ability to analyze data, draw conclusions, and link observations to underlying physics principles. Stay Neat and Organized: If you need to draw diagrams or sketches, ensure they are neat and well-labeled. This observation could be due to factors like the discharge of a capacitor or the change in temperature, affecting the resistance of the circuit. To determine the internal resistance of a given primary cell using a potentiometer. Practice Makes Perfect: Practice answering viva questions with a partner, teacher, or even in front of a mirror. Do the characteristics of the images produced by convex lenses rely on the location of the object?Answer: Yes, convex lenses form virtual images only when positioned between the optical centre and the focus point. What is meant by a cell’s internal resistance? A primary cell is a type of cell which cannot be recharged. Define the principal axis of a spherical mirror.Answer: The principal axis is the imaginary line that passes through the pole and the centre of curvature of the spherical mirror. Measurement of Resistance To determine resistance per cm of a given wire by plotting a graph of potential difference versus current. A lens has two refracting surfaces.107. How does current electricity differ from static electricity?Answer: Current electricity involves the continuous flow of charges, while static electricity is the result of separated charges that remain stationary until discharged. Define the principal focus on a concave mirror.Answer: The principal focus is the point on the principal axis where parallel rays converge after reflecting from a concave mirror. In a series combination of resistors, how is the total resistance calculated?Answer: In a series combination, the total resistance RT is the sum of the individual resistances: RT=R1+R2+R3+...+Rn What happens if a voltmeter is connected in series?Answer: A voltmeter, which measures potential difference, has high resistance. Physics Wallah also caters to over 3.5 million registered students and over 78 lakh+ Youtube subscribers with 4.8 rating on its app.We Stand Out becauseWe provide students with intensive courses with India’s qualified & experienced faculties & mentors. Why is a potentiometer preferred over a voltmeter for measuring e.m.f?A potentiometer is better for measuring e.m.f because it takes no current from the cell during measurement, ensuring an accurate reading. Circuit connections may be incorrect or loose. These questions test your ability to think critically and solve problems on the spot. How will you distinguish a concave lens from a convex lens experimentally? What is a metre bridge?Answer: A metre bridge, or slide wire bridge, is a device based on the Wheatstone bridge principle. In Class 12 physics practical examinations, viva questions plays an important role in evaluating a student’s understanding of the experiments they have performed. During your practical exam, be prepared to explain the significance of graphs and provide well-reasoned answers based on your observations, measurements, and experimental outcomes. Familiarize yourself with the equipment and apparatus used. From a region of high electron density to a region of low electron density, the flow of electrons in a direct current is constant. What is meant by a secondary cell? Consider a situation where you are standing in front of a mirror, and the image looks as follows:Answer: The head looks to be very large, the body looks to be normal size, and the legs look to be tiny.110. Apart from catering students preparing for JEE Mains and NEET, PW also provides study material for each state board like Uttar Pradesh, Bihar, and othersPrepare effectively for CBSE Class 12 Physics Viva Questions with Answers 2025. What are optics, and what are their types?Answer: The study of the wave properties of light is known as optics, and it is divided into three categories:Diffraction Interference Polarisation143. When semiconductors and unilateral devices such as diodes come into play, Ohm’s law fails to give the desired result because, in these materials, the physical conditions, such as temperature or pressure, do not remain constant. Refractive Index of Prism Material, Glass Slab and Transparent Liquid To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation. Electrical resistance is the hindrance provided by a material in the flow of current; it is the physical property of a substance which allows it to oppose the flow of electrons, that is, current. Define an electromagnet.Answer: An electromagnet is a magnet that can be magnetised using an electric current. Define the centre of curvature on a spherical mirror.Answer: The centre of the sphere from which the spherical mirror is made is called the centre of curvature.