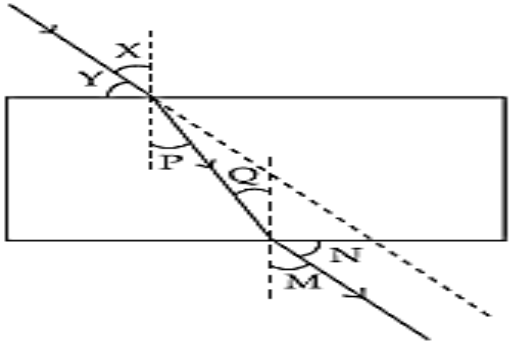


Curriculum Aligned Competency Based Test Items

Physics Class 10

Chapter 1 Reflection and refraction of light

1.	<p>For the refraction through a rectangular glass slab the diagram is given below.</p>  <p>The angle of incidence, angle of emergence and angle of refraction are respectively. (a) X,P,M (b) X,M,P (c) Y,M,P (d) Y,N,P</p>											
2.	<p>Image formed by plane mirror is _____ (a) Real and erect (b) Real and inverted (c) Virtual and erect (d) Virtual and inverted</p>											
3.	<p>The power of the lens is +2.5D. Its focal length in cm will be (a) + 40 (b) – 40 (c) + 80 (d) – 80</p>											
4.	<p>With a proper ray diagram show converging and diverging mirror.</p>											
5.	<p>Which one of the following materials cannot be used to make a lens? (a) Water (b) Glass (c) Plastic (d) Clay</p>											
6.	<p>The angle between incident ray and reflected ray is 60°. What is the angle of Incidence? (a) 30° (b) 40° (c) 60° (d) 50°</p>											
7.	<p>Match the following for the concave mirror?</p> <table border="1" data-bbox="280 1279 1337 1473"> <thead> <tr> <th>Object Position</th> <th>Image Position</th> </tr> </thead> <tbody> <tr> <td>At F</td> <td>Between F and C</td> </tr> <tr> <td>At C</td> <td>Behind the mirror</td> </tr> <tr> <td>Between F and P</td> <td>At infinite</td> </tr> <tr> <td>Beyond C</td> <td>At C</td> </tr> </tbody> </table>	Object Position	Image Position	At F	Between F and C	At C	Behind the mirror	Between F and P	At infinite	Beyond C	At C	
Object Position	Image Position											
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8.	<p>What is the magnification of images formed by the plane mirror?</p>											
9.	<p>A concave mirror gives virtual, and enlarged image of the object when the object is _____</p>											
10.	<p>What are the application of concave and convex mirror?</p>											

Chapter 2 Human eye and Colourful world

1.	The human eye forms the image of an object at its (a) Cornea (b) Iris (c) Pupil (d) Retina													
2.	The correct order of refractive index of various materials is : (a) Diamond > Ice > Alcohol > Rock salt (b) Ice > Diamond > Rock salt > Alcohol (c) Diamond > Rock salt > Alcohol > Ice (d) Rock salt > Alcohol > Ice > Diamond													
3.	Draw the ray diagram for a convex mirror (i) when light ray passes through optical centre (ii) when light ray passes through focus													
4.	A thin layer of water is transparent but a very thick layer of water is: (a) translucent (b) opaque (c) most transparent (d) none of these													
5.	Angle of deviation is given by (a) $d = i + e - A$ (b) $d = i - e + A$ (c) $d = A - i + e$ (d) None of these.													
6.	The velocity of light is maximum in a medium of (a) glass (b) water (c) vacuum (d) diamond													
7.	Angle of deviation is depends on: (a) Angle of prism (b) Nature of material of prism (c) Angle of incidence on the prism (d) All of the above													
8.	Draw the dispersion of white light from a triangular prism.													
9.	Explain the reason behind the twinkling of stars and tyndall effect.													
10.	Match the following <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Column A</th> <th style="text-align: left;">Column B</th> </tr> </thead> <tbody> <tr> <td>Convex lens</td> <td>Astigmatism</td> </tr> <tr> <td>Concave lens</td> <td>Myopia</td> </tr> <tr> <td>Bifocal lens</td> <td>Hypermetropia</td> </tr> <tr> <td>Cylindrical lens</td> <td>Presbyopia</td> </tr> <tr> <td>Concave lens</td> <td>Ctaract</td> </tr> </tbody> </table>	Column A	Column B	Convex lens	Astigmatism	Concave lens	Myopia	Bifocal lens	Hypermetropia	Cylindrical lens	Presbyopia	Concave lens	Ctaract	
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Chapter 3 ELECTRICITY

1.	A body can be negatively charged (a) Giving electrons to it (b) removing some electrons from it (c) giving some protons to it (d) removing some neutrons from it	
2.	How many electrons are equals to 1 coulomb? (a) 6.25×10^{16} (b) 6.25×10^{17} (c) 6.25×10^{18} (d) 6.25×10^{19}	
3.	The direction of electric current is taken as _____ to the direction of the flow of electrons. (a) Same (b) Opposite (c) Both (d) None	
4.	A device used to change the resistance of a circuit is _____. (a) Ammeter (b) Voltmeter (c) Rheostat (d) Galvanometer	
5.	The resistances R_1 and R_2 are connected in parallel and in series. Write down The equivalent resistance of the combination.	
6.	State the ohm's law. On what factor does it depend?	
7.	What is use of a fuse? Explain the working of a fuse in a circuit.	
8.	Draw the circuit diagram of a circuit having a battery, key, bulb, resistance wire, voltmeter and ammeter.	
9.	If the current I through a resistor is increased by 100% (assume that temperature remains unchanged), the increase in power dissipated will be: (a) 100% (b) 200% (c) 300% (d) 400%	
10.	The resistivity does not change if: (a) the material is changed (b) the temperature is changed (c) the shape of the resistor is changed (d) both material and temperature are changed	

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