

## Question Paper

**Subject: Science**

**Grade: 9<sup>th</sup>**

**Set-6**

Q.N	Folder name & Question Code	Topic	Question with Answer Option	Image (If Any)	Correct Answer (Option-A,B,C,D)
1	2_9 Science 6158	MOTION	A ball is thrown vertically upwards, and then caught again after 10seconds.Which of these graphs shows how its SPEED changes during its motion?		C
<b>Answer Options</b>					
		Option A	Option B	Option C	Option D

		<p><b>A</b></p>	<p><b>B</b></p>	<p><b>C</b></p>	<p><b>D</b></p>
<b>2</b>	<b>2_9</b> <b>Science</b> <b>6161</b>	MOTION	<p>If the earth (which is revolving around the sun in the direction shown) is at P at 12:00:01 AM on January 1, 2000 a leap year, where will it be at 12:00:01 AM on January 1, 2001?</p>	<p><b>B</b></p>	
<b>Answer Options</b>					
		Option A Exactly at the same position P.	Option B A little ahead of the position P.	Option C A little behind the position P.	Option D At the position Q shown.
<b>3</b>	<b>2_9</b> <b>Science</b> <b>6166</b>	MOTION	<p>Water is flowing through a pipe having a circular cross-section. The diameter of the pipe reduces in section P as shown. How will the speed of the water change in section P?</p>		<b>A</b>

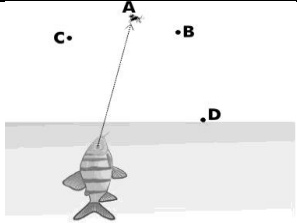
**Answer Options**

		Option A It will increase.	Option B It will reduce.	Option C It will stop altogether.	Option D It will not change.
<b>4</b>	<b>3_15 Science 3645</b>	MOTION	A truck driver drove 200 kilometres in 6 hours as shown in the graph. At which of the following times was the truck moving the slowest?		<b>B</b>

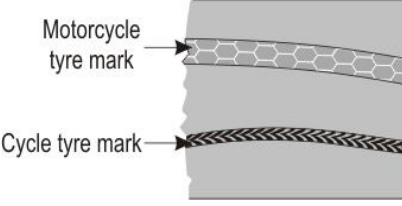
**Answer Options**

		Option A About 1 hr after he started	Option B About 3 hrs after he started	Option C About 4.5 hrs after he started	Option D About 5.5 hrs after he started
<b>5</b>	<b>3_15 Science 3657</b>	MOTION	In which of these cases ROTATIONAL MOTION is not there?		<b>B</b>

**Answer Options**

		Option A operating a pulley	Option B hitting a shuttlecock	Option C riding a bicycle	Option D using a beam balance
<b>6</b>	<b>3_16</b>  <b>Science</b>  <b>2529</b>	Force and laws of motion	Archer Fish are known to sight prey and then knock them off using a powerful jet of water. Where should the insect be for the Archer Fish to knock off the prey by using a powerful jet of water?		<b>B</b>

**Answer Options**

		Option A A	Option B B	Option C C	Option D D
<b>7</b>	<b>3_15</b>  <b>Science</b>  <b>3670</b>	Force and laws of motion	Tyre marks from a motorcycle and a bicycle are seen on a road. A square section of the road is made of concrete and does not display any marks. It is not possible for any vehicle to get off the road in the part shown .We can deduce WITH CERTAINTY:		<b>B</b>

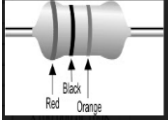
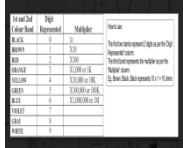
**Answer Options**

		Option A that the motorcycle passed before the cycle.	Option B that the cycle passed before the motorcycle .	Option C the cycle's direction of passing.	Option D the motorcycle 's direction of passing.
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8	2_9 Science  5061	Work and Energy	When Ram was about to switch on the light in his room, his sister stopped him. She told him that he should first DRY his hands (which were wet), before touching the electric switch.(Was Ram's sister correct? )Why / why not?		C
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**Answer Options**

		Option A Yes. The water can cause a short circuit (There is no increased danger to Ram)	Option B No. We should be careful in any case - dry or wet makes no difference.	Option C Yes. Wetness reduces body resistance and increases danger of shock.	Option D No. Water is a poor conductor of electricity, hence wet fingers are safer.
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9	2_9 Science 5062	Work and Energy	Resistors are semi-conductor devices which are important components of electronic circuits. Resistance is measured in OHMS, and each resistor has a rating in ohms. Because a resistor is small and may be fixed in any orientation, its resistance value is coded on it using coloured bands rather than writing its resistance value on it. A colour code is used to determine the value of a resistor as per this table. What is the resistance of the resistor shown here?	 	D
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**Answer Options**

		Option A 1000 ohms	Option B 20 ohms	Option C 2000 ohms	Option D 20000 ohms																																	
<b>10</b>	<b>2_9 Science  5063</b>	Work and Energy	Resistors are semi-conductor devices which are important components of electronic circuits. Resistance is measured in OHMS, and each resistor has a rating in ohms. Because a resistor is small and may be fixed in any orientation, its resistance value is coded on it using coloured bands rather than writing its resistance value on it. A colour code is used to determine the value of a resistor as per this table. Which three colour bands represent 600 ohms?	<table border="1"> <thead> <tr> <th>1st and 2nd Colour Band</th> <th>Digit Represented</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr><td>BLACK</td><td>0</td><td>X1</td></tr> <tr><td>BROWN</td><td>1</td><td>X10</td></tr> <tr><td>RED</td><td>2</td><td>X100</td></tr> <tr><td>ORANGE</td><td>3</td><td>X1,000 or 1K</td></tr> <tr><td>YELLOW</td><td>4</td><td>X10,000 or 10K</td></tr> <tr><td>GREEN</td><td>5</td><td>X100,000 or 100K</td></tr> <tr><td>BLUE</td><td>6</td><td>X1,000,000 or 1M</td></tr> <tr><td>VIOLET</td><td>7</td><td></td></tr> <tr><td>GRAY</td><td>8</td><td></td></tr> <tr><td>WHITE</td><td>9</td><td></td></tr> </tbody> </table> <p>How to use: The first two bands represent 2 digits as per the 'Represented' column. The third band represents the multiplier as per the 'Multiplier' column. Eg. Brown, Black, Black represents <math>10 \times 1 = 10</math></p>	1st and 2nd Colour Band	Digit Represented	Multiplier	BLACK	0	X1	BROWN	1	X10	RED	2	X100	ORANGE	3	X1,000 or 1K	YELLOW	4	X10,000 or 10K	GREEN	5	X100,000 or 100K	BLUE	6	X1,000,000 or 1M	VIOLET	7		GRAY	8		WHITE	9		<b>A</b>
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		Option A Blue, Black, Brown	Option B Blue, Black, Brown	Option C Brown, Blue, Black	Option D Violet, Blue, Brown																																	
<b>11</b>	<b>3_16 Science  2516</b>	Work and Energy	Which are the bulbs connected in series with each other and which are connected in parallel in the circuit shown here?	<table border="1"> <thead> <tr> <th></th> <th>Series</th> <th>Parallel</th> </tr> </thead> <tbody> <tr><td>A</td><td>1</td><td>2,3,4</td></tr> <tr><td>B</td><td>1,3</td><td>2,4</td></tr> <tr><td>C</td><td>3,4</td><td>1,2</td></tr> <tr><td>D</td><td>2</td><td>1,3,4</td></tr> </tbody> </table>		Series	Parallel	A	1	2,3,4	B	1,3	2,4	C	3,4	1,2	D	2	1,3,4	<b>B</b>																		
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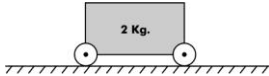
**Answer Options**

		Option A A	Option B B	Option C C	Option D D
<b>12</b>	<b>2_9 Science  6169</b>	Work and Energy	In the circuit given below, electricity will flow if there is a closed path from P to Q. Switches $S_2$ and $S_3$ will not allow electricity to flow if either is open. In which of these cases will current flow?		<b>A</b>

**Answer Options**

		Option A $S_1$ and $S_4$ are open; others are closed.	Option B $S_2$ and $S_4$ are open; others are closed.	Option C $S_1$ and $S_2$ are open; others are closed.	Option D $S_3$ and $S_4$ are open; others are closed.
<b>13</b>	<b>3_15 Science  3632</b>	Work and Energy	Nuclear power plants can produce energy more cheaply and with less pollution than thermal power plants. Why are there not more nuclear power plants than thermal power plants?		<b>D</b>

**Answer Options**

		Option A There is an endless supply of fossil fuels like coal available.	Option B Nuclear fuels produce too little heat during the nuclear fission reaction	Option C A kilogram of fossil fuel produces more energy than a kilogram of nuclear fuel.	Option D The issue of disposal of radioactive nuclear waste is not satisfactorily resolved.
<b>14</b>	<b>3_16</b>  <b>Science</b>  <b>2502</b>	WORK AND ENERGY	In the diagram below, a 20 Newton force is used to push a 2 kilogram toy cart a distance of 5 meters. The work done on the cart is _____		<b>B</b>

**Answer Options**

		Option A 40 J	Option B 100 J	Option C 150 J	Option D 200 J
<b>15</b>	<b>2_9</b>  <b>Science</b>  <b>5085</b>	WORK AND ENERGY	Which of these provides the energy for the motion of a petrol car?		<b>A</b>

**Answer Options**

		Option A  Petrol	Option B  Its battery	Option C  Its engine	Option D  Petrol and its battery
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