## Question Paper

## Subject: Science

Grade: $9^{\text {th }}$
Set-7

| Q.N | Folder name \& Questio n Code | Topic | Question with Answer Option | Image (If Any) | Correct Answer (Option-A,B,C,D) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2_9 <br> Science <br> 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 |
| Answer Options |  |  |  |  |  |
|  |  | Option A | Option B | Option C | Option D |



Answer Options

|  |  | Option A <br> About 30 cm. | Option B <br> About 3 m. | Option C <br> About 30 m. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{3}$ | $\mathbf{3 \_ 1 6}$ | MOTION |  | About 300 m. <br> A truck is carrying a water tank which has two <br> taps on either side as shown in the figure. The <br> taps are opened as the truck starts moving in <br> the circular path at a constant speed. As the <br> truck just completes the circle, the water in <br> the tank runs out completely. What will be the <br> shape of the water trail on the ground if seen <br> from the top? |  |

Answer Options

|  |  |  | Option B <br> B | Option C <br> c | Option D <br> D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 2_9 <br> Science <br> 6133 | MOTION | The unit of distance is metres. The unit of time is seconds. Hence the speed of a person who walks 100 metres in 50 seconds is 100 m divided by 50 seconds which is $2 \mathrm{~m} / \mathrm{s}$ or 2 metres per second.To find out the speed of gas moving through a large gas pipeline, an oil company measures that 10 kg of gas flows every 10 seconds. The mass flow rate is obtained by dividing the distance covered by the time taken to cover it. Then, the mass flow rate in the pipeline is expressed in the unit --- |  | B |

Answer Options


| Answer Options |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Option A <br> A | Option B <br> B | Option C <br> C |  |
| 6 | 3_15 <br> Science <br> 3670 | 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: |  |  |

## Answer Options

|  |  | Option A <br> that the motorcycle <br> passed before the <br> cycle. | Option B <br> that the cycle passed before the motorcycle . | Option C <br> the cycle's direction of passing. |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{7}$ | $\mathbf{1 3}$ <br> Scienc <br> $\mathbf{e}$ <br> $\mathbf{7 3 4 2}$ | GRAVITATION <br> Class -IX | A body has a mass of 2 kg. When will the <br> mass of the body change? |  | D |


|  |  | Option A When the body is taken to the moon. | Option B <br> When the body is dropped from a height. | Option C When the body is being pulled along a smooth surface. | Option D <br> The mass of the body will not change unless it is cut or broken. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | $\begin{aligned} & \hline 1 \_3 \\ & \text { Scienc } \\ & \text { e } \\ & 7360 \end{aligned}$ | GRAVITATION Class -IX | When a solid cube made of wax (density $0.9 \mathrm{~g} / \mathrm{cc}$ ) is placed in a beaker of alcohol (density $0.8 \mathrm{~g} / \mathrm{cc}$ ), it sinks (see figure 1 ). The same cube when placed in water (density $1 \mathrm{~g} / \mathrm{cc}$ ), it floats (see figure 2 ). What will happen if the cube of wax is placed in vegetable oil (density $0.9 \mathrm{~g} / \mathrm{cc}$, almost the same as the wax itself)? | Figure 1 <br> Wax | D |
|  |  | Option A It will sink to the bottom (same as figure 1). | Option B It will float (same as figure 2). | Option C <br> It is not possible that a solid and liquid have the same density. | Option D <br> The solid will stay in the liquid at any point it is placed without sinking or floating. |



| 11 | 1_3 <br> Scienc <br> e $6684$ | GRAVITATION <br> Class -IX | The 'mobile' shown is completely balanced. The sticks and strings are weightless. If the mass of $P$ is 30 grams, what is the mass of $Q$ ? |  | A |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|l} \hline \text { Option A } \\ 20 \mathrm{~g} \\ \hline \end{array}$ | $\begin{aligned} & \text { Option B } \\ & 30 \mathrm{~g} \end{aligned}$ | $\begin{aligned} & \text { Option C } \\ & 40 \mathrm{~g} \end{aligned}$ | $\begin{aligned} & \text { Option D } \\ & 60 \mathrm{~g} \\ & \hline \end{aligned}$ |
| 12 | $\begin{aligned} & \hline 2 \_9 \\ & \text { Scienc } \\ & \text { e } \\ & 6054 \end{aligned}$ | GRAVITATION <br> Class -IX | A block of wood is cut as shown in the figure. What will happen to its mass, volume and density? |  | D |
|  |  | Option A Mass and density will remain the same but volume will decrease. | Option B <br> Mass and volume will remain the same but density will decrease. | Option C <br> Mass remains the same but density and volume will decrease. | Option D <br> Density will remain the same but mass and volume will decrease. |
| 13 | 2_9 <br> Scienc <br> e $6056$ | GRAVITATION <br> Class -IX | Generally the density of a solid is higher than its liquid form. This is NOT true for: |  | B |
|  |  |  |  |  |  |



