

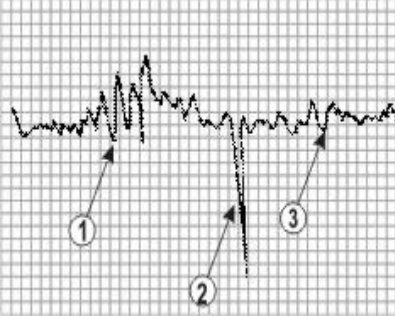
Question Paper

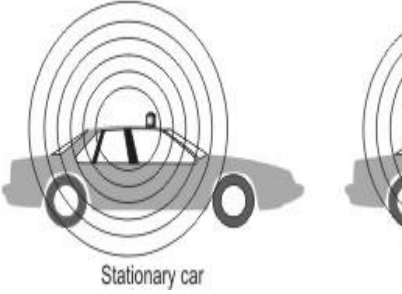
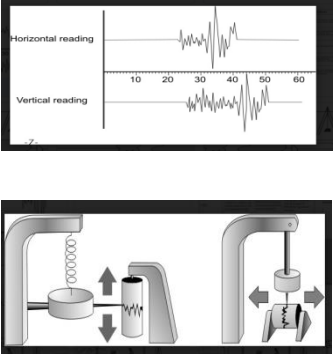
Subject: Science

Grade: 9th

Set-9

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 5085	WORK AND ENERGY	Which of these provides the energy for the motion of a petrol car?		A
Answer Options					
		Option A Petrol	Option B Its battery	Option C Its engine	Option D Petrol and its battery

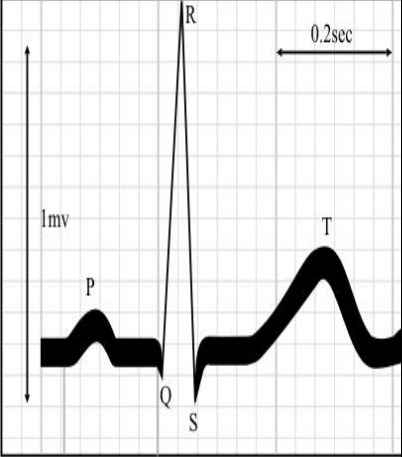
2	4_25 Science 11739	Sound	Study a sample polygraph output shown here. The person undergoing the test was asked six questions. The questions and answers are as shown below. It is known that the person answered question 1 truthfully. Assuming the polygraph result is valid, what conclusion can be reached?	 <table border="1" data-bbox="1220 548 1619 873"> <thead> <tr> <th colspan="2">Transcript</th> </tr> <tr> <th>Q. No.</th> <th>Question</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>What is your name?</td> </tr> <tr> <td>2</td> <td>Where were you at 3pm last Sunday</td> </tr> <tr> <td>3</td> <td>Did you steal the jewels from the Go</td> </tr> <tr> <td>4</td> <td>Do you know David who was caught</td> </tr> <tr> <td>5</td> <td>Do you know where the stolen jewell</td> </tr> <tr> <td>6</td> <td>How did you get the bandage in your</td> </tr> </tbody> </table>	Transcript		Q. No.	Question	1	What is your name?	2	Where were you at 3pm last Sunday	3	Did you steal the jewels from the Go	4	Do you know David who was caught	5	Do you know where the stolen jewell	6	How did you get the bandage in your	B
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		<p>Option A John Smith is definitely guilty of robbing Gold Jewellers and has the stolen jewellery.</p>	<p>Option B John Smith may not have actually robbed Gold Jewellers, but may have been involved.</p>	<p>Option C John Smith was at the Gold Jewellers store with David when the robbery occurred.</p>	<p>Option D John Smith is completely innocent and is not connected in any way with the robbery.</p>																

3	4_25 Science 11680	Sound	The diagrammatic representation of the sound wave given out by a siren of a security vehicle is shown below when the vehicle is STATIONARY, MOVING SLOWLY and MOVING FAST. As the vehicle APPROACHES an observer, in which of these ways will the sound heard change?		B
Answer Options					
		Option A Its volume will decrease.	Option B Its pitch will increase.	Option C Its frequency will decrease.	Option D There will be no change in the sound heard.
4	2_9 Science 5074	Sound *(more suitable when mapped to class VIII some natural phenomenon)	Study the principle of functioning of a seismograph shown in the diagram below. Seismographs are used to detect earthquakes and measure their intensities. The seismograph shown detects horizontal and vertical vibrations. The recordings made on both drums during an earthquake are shown below. How long did the quake last?		C
Answer Options					
		Option A 3 seconds	Option B 20 seconds	Option C 28 seconds	Option D 44 seconds

5	2_9 Science 6165	SOUND	Which of these does NOT use radio waves?		D
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Answer Options

		Option A FM radio	Option B Mobile telephone	Option C Television	Option D Camera
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6	2_9 Science 5068	SOUND	<p>The human heart beat can be recorded electrically, to detect any abnormalities in its functioning. The graph obtained is called an ELECTROCARDIOGRAM (ECG). Study the elements of a normal ECG shown below and answer the question.</p> <p>(1) P wave. The P wave is generated by the contraction of the upper chambers of the heart.(2). QRS complex. Contraction of the lower chambers of the heart generates the QRS wave complex.(3). T wave. The T wave is generated by the relaxation of the lower chambers of the heart. The entire cycle from one P wave to the next is one heartbeat. Based on the above normal ECG, estimate the normal heart beat rate in humans in beats per minute (bpm).</p>		C
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Answer Options

		Option A 1 - 5 bpm	Option B 5 - 50 bpm	Option C 60 - 100 bpm	Option D 100 - 200 bpm
7	2_9 Science 5069	SOUND	The human heart beat can be recorded electrically, to detect any abnormalities in its functioning. The graph obtained is called an ELECTROCARDIOGRAM (ECG). Study the elements of a normal ECG shown below and Identify the normal ECG from the four shown below	 	D

Answer Options

		Option A A	Option B B	Option C C	Option D D
8	2_9 Science 5070	SOUND	The human heart beat can be recorded electrically, to detect any abnormalities in its functioning. The graph obtained is called an ELECTROCARDIOGRAM (ECG). Study the elements of a normal ECG shown .Under which of these conditions is the ECG likely NOT to change?		C

Answer Options

		Option A If the ECG is recorded immediately after strenuous exercise.	Option B If the ECG is recorded while a person is having high fever	Option C If the ECG is recorded immediately after a person wakes up.	Option D If the ECG is recorded soon after a heart surgery.
9	2_9 Science 5058	SOUND	Most television sets these days can be operated through a REMOTE CONTROL. How do most 'remotes' communicate with TV sets?		B
Answer Options					
		Option A Using radio waves	Option B Using infra-red rays	Option C Using ultra-violet rays	Option D Using microwaves
10	2_9 Science 6164	Sound	Search for Extra-Terrestrial Intelligence (SETI) is the name of a project which is constantly monitoring electromagnetic waves being received from space. Many heavenly bodies also emit electromagnetic signals but these follow simple, regular patterns. If SETI detected the following patterns, which one of them is likely to be from intelligent aliens?		C
Answer Options					
		Option A 5, 10, 15, 20...	Option B 125, 100, 75, 50, 25...	Option C 5, 7, 11, 13, 17...	Option D 8, 8, 8, 8, 8

11	3_15 Science 3671	Why Do We Fall Ill?	It is likely that when a person sweats, his body's electrical resistance-----.	<p>Read the details about the Lie Detector machine and answer the question.(A polygraph or a lie detector is based on the principle that when a person is 'stressed' (as happens when most people tell a lie) the person's involuntary nervous system reacts to that stress by doing a series of things including increasing the respiration, heart rate, and perspiration. Most Lie Detectors measure the amount of perspiration on a person's skin using a pair of electrodes and displaying the result on a meter. The meter movement is proportional to the amount of perspiration on the skin. Devices which measure this perspiration are also called psychogalvanometers or galvanic skin response (GSR) meters.</p>	C
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Answer Options

		Option A stays the same.	Option B increases	Option C decreases.	Option D becomes zero.
12	3_15 Science 3647	Why do we fall ill?	We wish to test if a certain vaccine developed for a disease is effective or not. What is the best way to do this?		C

Answer Options

		Option A Vaccinate 100 animals and expose all 100 to the disease.	Option B Vaccinate 100 animals and expose 50 of them to the disease.	Option C Vaccinate 50 animals, do not vaccinate 50 other animals, and expose all 100 to the disease.	Option D Vaccinate 50 animals, do not vaccinate 50 other animals, and expose the vaccinated animals to the disease				
13	3_17 Science 1829	Why do we fall ill?	To which of the cells shown below does the disease TETANUS belong?	<p align="center">Bact</p> <table border="1"> <tr> <td>Vaccination available</td> <td>A</td> </tr> <tr> <td>Vaccination not available</td> <td>C</td> </tr> </table>	Vaccination available	A	Vaccination not available	C	A
Vaccination available	A								
Vaccination not available	C								

Answer Options

		Option A A	Option B B	Option C C	Option D D
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14	4_23 Science 9128	Why do we fall ill?	Microorganisms causing diseases like tuberculosis (TB) sometimes develop resistance to the drug due to their exposure to the drugs. Which of these could contribute to this resistance?		A						
Answer Options											
		Option A Patients not completing the treatment but stopping the course once they feel better.	Option B Patients not beginning the prescribed treatment at all for different reasons.	Option C Patients continuing the treatment beyond the prescribed period of medication.	Option D Patients following doctors' advice and continuing the treatment exactly as instructed.						
15	4_24 Science 10388	Why do we fall ill?	From the description above, we can guess that a placebo is _____	<table border="1"> <thead> <tr> <th>Type of treatment</th> <th>Incidence of cold per person</th> </tr> </thead> <tbody> <tr> <td>Group that received vitamin C dosage</td> <td>0.38</td> </tr> <tr> <td>Group that received placebo dosage</td> <td>0.37</td> </tr> </tbody> </table>	Type of treatment	Incidence of cold per person	Group that received vitamin C dosage	0.38	Group that received placebo dosage	0.37	C
Type of treatment	Incidence of cold per person										
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Group that received placebo dosage	0.37										
Answer Options											
		Option A Simply another name for an identical vitamin C tablet.	Option B a vitamin C tablet but which looks different (in colour and size)	Option C Something that looks like a vitamin C tablet but has no medicinal value.	Option D a tablet containing chemicals to cure the common cold, but not vitamin C.						