


Question Paper

Subject: Science

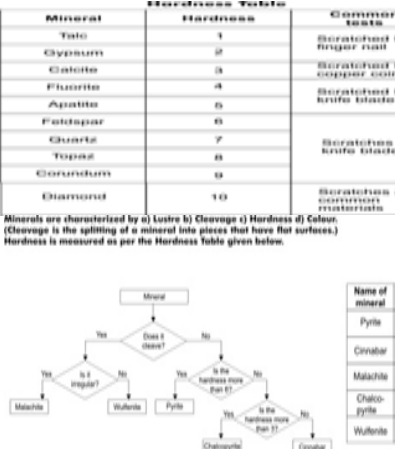
Grade: 9th

Set-3

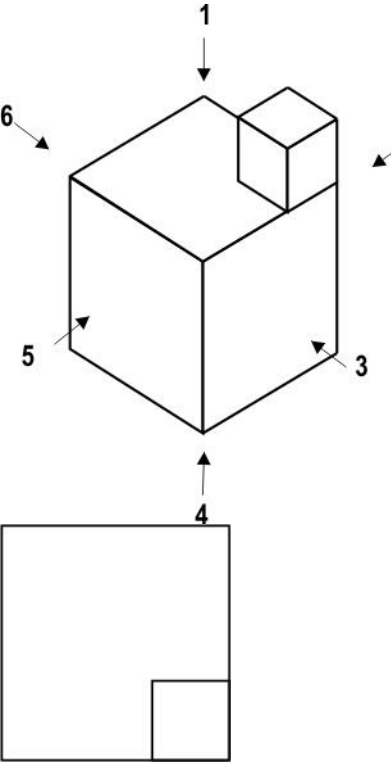
Q.N	Folder name & Question Code	Topic	Question with Answer Option	Image (If Any)	Correct Answer (Option-A,B,C,D)																																													
1	2_9 Science 6170	IS MATTER AROUND US PURE	Minu found a mineral that was able to scratch a knife blade and it did not split into pieces. Identify the mineral found by her.	<p>Use both the tables and flow chart given on this page to answer the question</p> <table border="1" style="font-size: small; margin-bottom: 5px;"> <thead> <tr> <th>Mineral</th> <th>Hardness</th> <th>Common tests</th> </tr> </thead> <tbody> <tr><td>Talc</td><td>1</td><td>Scratched by finger nail</td></tr> <tr><td>Gypsum</td><td>2</td><td></td></tr> <tr><td>Calcite</td><td>3</td><td>Scratched by copper coin</td></tr> <tr><td>Fluorite</td><td>4</td><td></td></tr> <tr><td>Apatite</td><td>5</td><td>Scratched by knife blade</td></tr> <tr><td>Feldspar</td><td>6</td><td></td></tr> <tr><td>Quartz</td><td>7</td><td>Scratches a knife blade</td></tr> <tr><td>Topaz</td><td>8</td><td></td></tr> <tr><td>Corundum</td><td>9</td><td></td></tr> <tr><td>Diamond</td><td>10</td><td>Scratches all common materials</td></tr> </tbody> </table> <p style="font-size: x-small;">Minerals are characterized by a) Lustre b) Cleavage c) Hardness d) Colour (Cleavage is the splitting of a mineral into pieces that have flat surfaces.) Hardness is measured as per the Hardness Table given below.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <pre> graph TD Mineral --> Q1{Does it cleave?} Q1 -- Yes --> Malachite Q1 -- No --> Q2{Is it angular?} Q2 -- Yes --> Wulfenite Q2 -- No --> Pyrite Pyrite --> Q3{Is the mineral more than 10?} Q3 -- Yes --> Chalcopyrite Q3 -- No --> Q4{Is the mineral more than 7?} Q4 -- Yes --> Chalcopyrite Q4 -- No --> Copper </pre> </div> <table border="1" style="font-size: x-small;"> <thead> <tr> <th>Name of mineral</th> <th>Colour</th> </tr> </thead> <tbody> <tr><td>Pyrite</td><td>Brassy yellow</td></tr> <tr><td>Cinnabar</td><td>Dark red</td></tr> <tr><td>Malachite</td><td>Bright green</td></tr> <tr><td>Chalcopyrite</td><td>Brassy yellow</td></tr> <tr><td>Wulfenite</td><td>Orange yellow</td></tr> </tbody> </table> </div>	Mineral	Hardness	Common tests	Talc	1	Scratched by finger nail	Gypsum	2		Calcite	3	Scratched by copper coin	Fluorite	4		Apatite	5	Scratched by knife blade	Feldspar	6		Quartz	7	Scratches a knife blade	Topaz	8		Corundum	9		Diamond	10	Scratches all common materials	Name of mineral	Colour	Pyrite	Brassy yellow	Cinnabar	Dark red	Malachite	Bright green	Chalcopyrite	Brassy yellow	Wulfenite	Orange yellow	D
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2	2_9 science 6172	IS MATTER AROUND US PURE	What can we say about the hardness of a material that scratches a knife blade?	Use both the tables and flow chart given on this page to answer the question 	B
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Answer Options

		Option A It will be 4 or more.	Option B It will be 6 or more.	Option C It will be between 6 and 9.	Option D It will be between 4 and 6.
3	2_9 Science 6171	IS MATTER AROUND US PURE	Which of these minerals has a yellowish shade and cleaves regularly?	Use both the tables and flow chart given on this page to answer the question 	D

Answer Options

		Option A Pyrite	Option B Cinnabar	Option C Chalcopyrite	Option D Wulfenite
4	4_23 Science 9168	MATTER	A small cube is fixed to the corner of a large cube as shown here. From which of the directions (indicated by the arrows above) would the view of the object be as shown below?		A

Answer Options

		Option A Only 1	Option B 4 and 6	Option C 3 and 5	Option D Only 2
5	4_24 Science 10395	MATTER	Till Fredrick Wohler synthesized urea in the laboratory, it was believed that only living organisms could produce organic molecules. According to people who believed this, which of these compounds could NOT be synthesized from chemicals in a laboratory?		A
Answer Options					
		Option A Sugar	Option B Water	Option C Salt	Option D Hydrogen gas
6	2_9 Science 6147	Atoms and molecules	A piece of zinc (Zn) - a reactive metal - was dropped into a test tube containing hydrochloric acid (HCl). The bubbling in the tube indicated that a gas was released. The gas could be which of these?		A
Answer Options					
		Option A Hydrogen H ₂	Option B Oxygen O ₂	Option C Methane CH ₄	Option D Carbon dioxide CO ₂
7	2_9 Science 6141	Atoms and Molecules	The first four compounds in a chemical series are CH ₄ , C ₂ H ₆ C ₃ H ₈ C ₄ H ₁₀ , Identify the fifth.		B

Answer Options

		Option A C ₅ H ₁₀	Option B C ₅ H ₁₂	Option C C ₆ H ₁₂	Option D C ₆ H ₁₄
8	3_15 Science 3635	Atoms and Molecules	What happens to the individual molecules in a vegetable when we eat the vegetable?		D

Answer Options

		Option A Individual molecules are always broken down into their constituent atoms during the digestion process.	Option B Individual molecules are always completely destroyed during the process of eating and digestion.	Option C Individual molecules are always unaffected and stay in their original form in our bodies.	Option D Individual molecules may stay unaffected or their atoms may recombine to form different molecules.
9	3_16 Science 2496	Atoms and Molecules	Which of these is/are conserved during a chemical reaction?		C

Answer Options

		Option A mass only	Option B charge only	Option C both mass and charge	Option D neither mass nor charge

10	3_16 Science 2508	Atoms and Molecules	The carbon atom forms a part of all the major molecules found in living things. Which of the following does not contain carbon?		B
Answer Options					
		Option A DNA	Option B HCl	Option C Plastics	Option D Diesel
11	3_17 Science 1825	STRUCTURE OF ATOM	Compared to a chlorine atom, Cl, a chlorine ion Cl ⁻ , will have _____		C
Answer Options					
		Option A one proton less	Option B one neutron more	Option C one electron more	Option D one neutron less and one proton less
12	3_17 Science 1836	Atom and molecules	Do atoms have colour?		D
Answer Options					

		Option A Yes. Atoms have different colours depending on their atomic composition.	Option B Yes. Atoms have different colour depending on the state of substance.	Option C No. All atoms are colourless (that is, they are transparent.)	Option D (The question is meaningless as colour has no meaning at the atomic level)
13	4_23 Science 9160	ATOMS AND MOLECULES	In 1911, the physicist Ernest Rutherford discovered that atoms have tiny, dense nuclei by shooting positively charged particles at a very thin gold foil, Which physical property of gold was used by Rutherford in his gold leaf experiment?		B
Answer Options					
		Option A non corrosive	Option B highly malleable	Option C highly ductile	Option D non reactive
14	4_23 Science 9139	ATOMS AND MOLECULES	An ion with 13 protons, 14 neutrons, and a charge of 3 ⁺ has an atomic number of		B
Answer Options					
		Option A 10	Option B 13	Option C 14	Option D 27

15	3_17 Science 1831	STRUCTURE OF ATOM	Which element is found in both sodium chlorate and zinc nitrate?		C
Answer Options					
		Option A nitrogen	Option B Hydrogen	Option C oxygen	Option D Chlorine