

CLASS VI
MIDTERM EXAMINATION (2022–23)
MARKING SCHEME
SUBJECT: SCIENCE
Set B1/B2

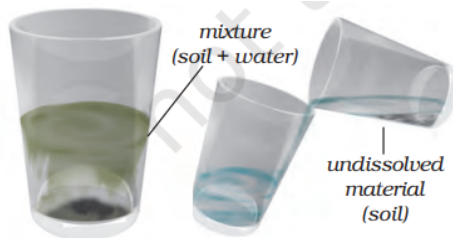
Time Allowed: 3hr

Max Marks: 80

		General Instructions : i) All questions are compulsory. ii) Internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions. iii) Draw neat and labelled diagrams wherever necessary with a pencil. iv) Please note that the marking scheme consists of 9 printed pages.	
Set B1	Set B2	EXPECTED ANSWERS WITH QUESTIONS	MARKS
		SECTION A Q1 to 4 (each subpart carries 1 mark each)	
1 (i)	2 (i)	Choose the correct option for the following: Which of the following is a rich source of fats: (a) Butter (b) Apple (c) Spinach (d) Sunflower seeds	1
(ii)	(ii)	Energy giving foods in our body are: (a) Vitamins (b) Protein (c) Carbohydrates (d) Minerals	1
(iii)	(iii)	Deficiency of vitamin A causes: (a) Loss of vision (b) Rickets (c) Goiter (d) Scurvy	1
(iv)	(iv)	Which of the following cannot form a shadow: (a) Wall (b) Steel plate (c) Cardboard (d) Transparent plastic sheet	1

(v)	(v)	A mixture of sand and iron nails can be separated by: (a) Winnowing (b) Sieving (c) Filtration (d) None of these	1
(vi)	(vi)	The process of conversion of water vapours into liquid is called: (a) Condensation (b) Decantation (c) Sedimentation (d) Evaporation	1
(vii)	(vii)	Which of the following methods would be most appropriate to separate butter from curd: (a) Handpicking (b) Winnowing (c) Sieving (d) Churning	1
(viii)	(viii)	One meter is equal to millimeter. (a) 10 (b) 1000 (c) 100 (d) 10000	1
(ix)	(ix)	The standard unit of measuring distance is: (a) Meter (b) Handspan (c) Yard (d) Cubit	1
(x)	(x)	Human skin is _____ in nature: (a) Translucent (b) Transparent (c) Opaque (d) None of these	1
2	1	Fill in the blanks: (i) _____ is caused by the deficiency of Vitamin D. Ans. Rickets (ii) Starch is present in _____. Ans. Rice (iii) Sugar _____ in water. Ans. dissolves (iv) We dry our clothes by using the process of _____. Ans. Evaporation	6*1

		(v))Motion of a child on a swing is _____. Ans. periodic/ oscillatory (vi) Sun is an example of _____ object. Ans. luminous	
3	4	State true/ false for the following: (i) Milk is an animal product while curd & ghee are plant products. Ans. False (ii) Wood is soluble in water. Ans. False (iii) Motion of a vehicle on a straight road is an example of rectilinear motion. Ans. True (iv) We can measure the length of a curved line with the help of a scale. Ans. False (v) Beri beri is caused by the deficiency of vitamin C. Ans. False	5*1
4	3	Give one word for the following: (i) A material that floats on water. Ans. Wood (ii) Method used to separate chillies from poha. Ans. Handpicking (iii) Method used to separate sand from sawdust. Ans. Winnowing (iv) Motion of the tip of the blade of a fan. Ans. Circular motion (v) Type of motion shown by a rolling ball. Ans. Rectilinear/ rotational	5*1
		SECTION B Q5 to 11 carry 2 marks each(Q10 has an internal choice)	
5	5	How can we test for the presence of fats in a given food sample ? Ans. Take a small quantity of a food item. Wrap it in a piece of paper and crush it. Take care that the paper does not tear. Now, straighten the paper and observe it carefully. An oily patch on paper shows that the food item contains fat.	2
6	6	Why do we need to group materials? Give two reasons. Ans. 1. In everyday life, we often group materials for our convenience. 2. To study their properties. 3. To locate them easily.	1+1

7	8	<p>Define sieving. Give its uses.</p> <p>Ans. Sieving is a method in which fine particles are sieved through holes of the sieve while the bigger impurities remain on the sieve.</p> <p>Sieving is used in a flour mill to separate impurities like husk and stones from wheat before grinding it. It is also used at construction sites to separate pebbles and stones from sand.</p>	1+1
8	7	<p>Draw and label the diagrams showing the process of sedimentation and decantation.</p> <p>Ans.</p> 	2
9	9	<p>Lemonade is prepared by mixing lemon juice and sugar in water. You wish to add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar? In which case would it be possible to dissolve more sugar?</p> <p>Ans. Ice should be added after dissolving sugar in water.</p> <p>We can dissolve more sugar in water before adding ice to it as solubility of sugar will decrease at lower temperature.</p>	2
10	10	<p>While measuring the length of a knitting needle, the reading of the scale at one end is 3.0 cm and at the other end is 33.1 cm. What is the length of the needle?</p> <p>Ans. Reading of ruler at one end= 3.0 cm Reading of ruler at the other end= 33.1 cm Actual reading= 33.1-3= 30.1 cm (working 1 mark, correct answer and unit 1 mark)</p> <p style="text-align: center;">OR</p> <p>The height of a tower is 30m. Express the height in cm and km.</p> <p>Ans. (i) 1m= 100 cm 30m= 30*100= 3000 cm (ii) 1km= 1000m 30m= 30/1000= 0.030 km</p>	<p>1+1</p> <p>1+1</p>
11	11	<p>Write any two differences between the nature of images formed by a plane mirror and a pinhole camera.</p> <p>Ans. The image formed by a plane mirror is of the same size and erect. And these images cannot be obtained on screen.</p> <p>While the images formed by pinhole camera are diminished (i.e., small than the size of the object) and are inverted.</p>	1+1

		SECTION C Q12 to Q16 carry 3 marks each(Q13 has an internal choice)	
12	12	<p>Set B1 Identify the method of separation that can be used to separate the following: (a) Tea leaves from tea- filtration (b) Sand from stones- sieving (c) Oil and water- sedimentation and decantation</p> <p>Set B2 Identify the method of separation that can be used to separate the following: (a) Cottage cheese from water-filtration (b) Salt from sugar crystals- Sieving (c) Coconut oil from water-sedimentation and decantation</p>	3
13	14	<p>(i) What is a saturated solution? Ans. When no more solute can be dissolved in a solution, it is said to be saturated.</p> <p>(ii) Suggest two ways to make a saturated solution unsaturated. Ans. 1. Heating the solution 2. Adding more solvent to the solution</p> <p style="text-align: center;">OR</p> <p>(i) Differentiate between threshing and winnowing.(two points for each) Ans. The process of beating out grains from the stems is called threshing, whereas the process of separation of grain from the chaff is called winnowing. Threshing is done before winnowing, whereas winnowing is done immediately after the threshing.</p> <p>(ii) Why do we need to separate different components of a mixture? Ans. 1. To remove unwanted components 2. To obtain useful substances 3. To remove harmful components</p>	<p>1</p> <p>2</p> <p>2</p> <p>1</p>
14	13	<p>(i) What is a balanced diet? Ans. A diet that includes all the essential nutrients in the correct proportion is called a balanced diet. A balanced diet is very important for our body's normal growth and development.</p> <p>(ii) What happens when a person does not get enough protein in his/her food for a long time.(two points) Ans. If a person does not get enough proteins in his/her food for a long time, he/she is likely to have stunted growth, swelling of face, discolouration of hair, skin diseases and diarrhoea.</p>	<p>1</p> <p>2</p>

15	15	<p>Define a shadow. List any two conditions/ things necessary for the formation of shadow.</p> <p>Ans. An area of darkness formed by an opaque object obstructing light is called a shadow.</p> <p>There should be a source of light and screen. The object must be placed in the path of light. Then a shadow is formed on the screen.</p>	<p>1+2</p> <p>1</p> <p>2</p>
16	16	<p>Define the following with examples:</p> <p>(a) Opaque objects</p> <p>Ans. Objects through which we cannot see anything at all. Eg. wall, wood, brick etc.</p> <p>(b) Translucent objects</p> <p>Ans. There are some objects through which we can see, but not very clearly. Such objects are known as translucent. Eg. butter paper, oiled paper, coloured glass/ plastic.</p> <p>(c) Transparent objects</p> <p>Ans. If you are able to see clearly through an object, it is allowing light to pass through it and is transparent. Eg. Air, transparent plastic sheet etc.</p>	1*3
		<p style="text-align: center;">SECTION D</p> <p style="text-align: center;">Q17 to Q19 carry 5 marks each(Q18 has an internal choice)</p>	
17	17	<p>Set B1</p> <p>State the function of the following nutrients in our body:</p> <p>(i) Carbohydrates - Energy giving food</p> <p>(ii) Proteins - Bodybuilding food</p> <p>(iii) Iodine - Proper functioning of thyroid gland</p> <p>(iv) Iron - Weakness/ anaemia</p> <p>(v) Calcium - Makes bones and teeth strong</p> <p>Set B2</p> <p>Write one source of food for each of the following nutrients:</p> <p>(i) Carbohydrates - Potato, Rice, Wheat</p> <p>(ii) Proteins - Pulses, fish, cheese</p> <p>(iii) Fats - Butter, oil, ghee</p> <p>(iv) Vitamin A - Mango, papaya, carrot</p> <p>(v) Calcium - Milk, egg, curd</p>	<p>1*5</p> <p>1*5</p>

18	19	<p>You are provided with a mixture of sand, salt, oil and water. Arrange the following steps in the correct sequence for separating salt, sand, water and oil from the mixture.</p> <p>Evaporation of solution , leave the mixture undisturbed for sedimentation, filter the solution to remove insoluble components, condensation of vapours to obtain liquid , decantation.</p> <p>Ans. We can separate salt, sand, oil, and water in the following sequence -</p> <ol style="list-style-type: none"> 1. Leaving the mixture undisturbed for sedimentation 2. Decantation 3. Filter the solution to remove insoluble components 4. Evaporation of solution 5. Condensation of vapours to obtain liquid. <p style="text-align: center;">OR</p> <p>Study the given picture and answer the questions given below:</p> <p>(i) Identify the process of separation and define it.</p> <p>(ii) Label any three parts out of A, B, C and D .</p> <div> </div> <p>Ans.(i) Filtration- Filtration is defined as the process of separating suspended solid matter from a liquid, by passing it through a filter like filter paper, strainer etc.</p> <p>(ii)</p> <ul style="list-style-type: none"> A- Filter paper B- Funnel C- Residue/ insoluble impurities D- Filtrate/ water 	5
19	18	<p>(i) Study the picture given below and answer the questions that follow:</p> <div> </div> <p>(i) What will you observe in :</p> <p>(a) Case A</p>	

		<p>Ans. We can see the candle through the pipe</p> <p>(b) Case B</p> <p>Ans. We cannot see the candle through the pipe</p> <p>(ii) What do you conclude from the above activity?</p> <p>Ans. From this activity we can conclude that light travels along a straight line.</p> <p>(ii) Why should we never look directly at the Sun? Suggest a method to look at the sun/ solar eclipse safely.</p> <p>Ans. Looking directly at the sun could be extremely harmful for the eyes. We can look at the sun/ solar eclipse safely with the help of a pinhole camera.</p>	<p>1</p> <p>1</p> <p>1</p> <p>2</p>
		<p style="text-align: center;">Section E</p> <p style="text-align: center;">Q20 and 21 are Case based questions, carry 5 marks each</p>	
20	21	<p>Read the passage given below and answer the questions that follow based on the passage and related concepts:</p> <p>In our daily life we use various types of measuring devices. We use a metre scale for measuring length. A tailor uses a tape, whereas a cloth merchant uses a metre rod. For measuring the length of an object, you must choose a suitable device.</p> <p>(i) While taking measurement with a scale, we should:</p> <p>(a) Never keep the ruler along the length to be measured</p> <p>(b) Use worn out portions of the ruler</p> <p>(c) Keep the eye vertically above the point where the measurement is to be taken</p> <p>(d) Hold the scale in any direction</p> <p>(ii) Measurement means the comparison of an unknown quantity with some known quantity. This known fixed quantity is called:</p> <p>(a) Number</p> <p>(b) Unit</p> <p>(c) Metre</p> <p>(d) Length</p> <p>(iii) Which of the following is most suitable to measure the girth of a tree:</p> <p>(a) Scale</p> <p>(b) Elastic</p> <p>(c) Meter scale</p> <p>(d) Measuring tape</p>	<p>1</p> <p>1</p> <p>1</p>

		(iv) Name any two ancient modes of transport. Ans. Horse cart, boats	2									
21	20	<p>Read the passage given below and answer the questions that follow based on the passage and related concepts:</p> <p>We see around us various objects like a chair, a bullock cart, a cycle, cooking utensils, books, clothes, toys, water, stones and many more. All these objects have different shapes, colours and uses. All objects around us are made of one or more materials. These materials may be glass, metal, plastics, wood, cotton, paper, mud or soil.</p> <p>(i) Which of the following can be made from wood: (a) Cooking utensils (b) Boat (c) Needle (d) Bed sheet</p> <p>(ii) Identify a round object from the following: (a) Carrom board (b) Wheel (c) Airplane (d) Ship</p> <p>(iii) A non lustrous material: (a) Paper boat (b) Metal key (c) Gold bangle (d) Coin</p> <p>(iv) Complete the following table:</p> <table><tr><th>S.No</th><th>Object</th><th>float/sink</th></tr><tr><td>1</td><td>Plastic ball</td><td>float</td></tr><tr><td>2</td><td>Stones</td><td>sink</td></tr></table>	S.No	Object	float/sink	1	Plastic ball	float	2	Stones	sink	<p>1</p> <p>1</p> <p>1</p> <p>2</p>
S.No	Object	float/sink										
1	Plastic ball	float										
2	Stones	sink										

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