

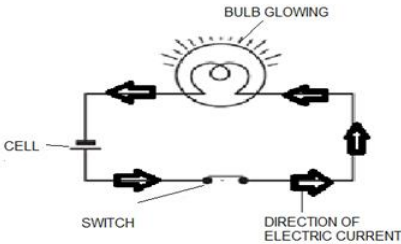


CLASS – VII
MID TERM EXAMINATION (2023-24)
SUBJECT: SCIENCE
SET C1/C2

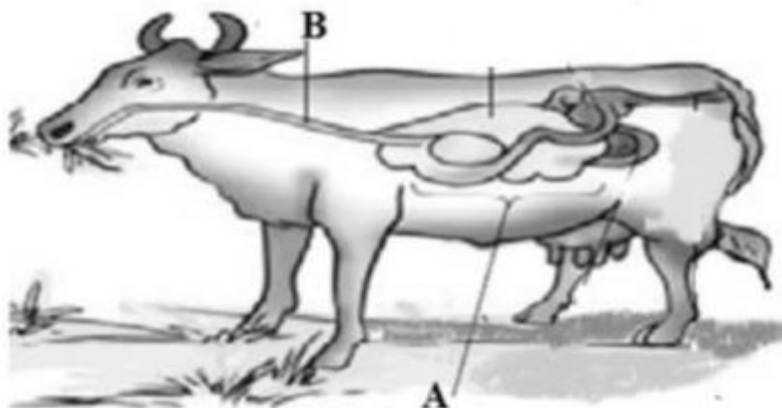
Time Allowed: 2 ½ hours

Max Marks: 60

SET C1	SET C2	EXPECTED ANSWERS	MARKS
SECTION A (1 MARK)			
Q1	Q5	<p>Choose the correct option:</p> <p>a) <i>Cuscuta</i> is an example of: i) Autotroph ii) Parasite iii) Saprotroph iv) Host</p> <p>b) Water from the undigested food is absorbed mainly in the i) Food pipe ii) Small intestine iii) Large intestine iv) Stomach</p> <p>c) The normal temperature of a healthy person is 37° on i) Kelvin scale ii) Celsius scale iii) Fahrenheit scale iv) both (ii) and (iii)</p> <p>d) The acid present in lemons is i) Oxalic acid ii) Acetic acid iii) Citric acid iv) Tartaric acid</p> <p>e) During exhalation, the ribs i) Move outwards ii) Move downwards iii) Move upwards iv) Do not move at all</p> <p>f) An electric fuse works on the: i) Chemical effect of current ii) Lightning effect of current iii) Magnetic effect of current iv) Heating effect of current</p>	<p>(1×6= 6)</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
Q2	Q4	<p>Fill in the blanks:</p> <p>a) A cold steel spoon is dipped in a cup of hot milk. Heat is transferred to its other end by the process of Conduction.</p> <p>b) Substances which are nether acidic nor basic are called neutral.</p> <p>c) Indicators are substances used to test whether a substance is acidic or basic.</p> <p>d) The food synthesized by plants is stored as Starch.</p> <p>e) Stomata are tiny pores on the leaf surface for exchange of gases.</p> <p>f) <i>Amoeba</i> captures its food with the help of its false feet/pseudopodia.</p>	<p>(1×12=12)</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>

		g) Dark coloured clothes are preferred during winter. h) Cud is partially digested food in the Rumen part of stomach in Ruminants. i) Gills in fish help them to use oxygen dissolved in water. j) Spiracles are small opening on the sides of the body of an insect through which air enters. k) When current is switched 'on' in a room heater, it becomes red hot/ produces heat . l) Longer line in the symbol for a cell represents its positive terminal.	1 1 1 1 1 1
Q3	Q3	State True (T) or False (F) for the given statements: a) The tongue helps in mixing food with saliva. True b) Temperature of boiling water can be measured by a clinical thermometer. False c) Tooth decay is caused by the presence of a base. False d) Plants with red and brown coloured leaves cannot perform photosynthesis. False e) Land breeze blows during night time. True f) Window cleaner contains Ammonium Hydroxide as a base. True g) To make a battery of two cells, the negative terminal of one cell is connected to the negative terminal of the other cell. False h) Plants carry out photosynthesis only during the day and respiration only at night. False	(1×8= 8) 1 1 1 1 1 1 1 1
Q4	Q2	Answer in one word: a) Degree of hotness of the body- Temperature . b) The complex carbohydrate digested by ruminants- Cellulose c) The reaction between an acid and a base in which salt and water are produced with the evolution of heat - Neutralisation d) A plant that is partially autotrophic- Pitcher plant e) A large muscular sheet which forms the floor of chest cavity- Diaphragm f) Combination of two or more cells in a circuit- Battery	(1×6= 6) 1 1 1 1 1 1
Q5	Q1	In the question given below, two statements are given; one is labelled as Assertion (A) and the other is labelled as Reason (R). ASSERTION (A): An iron ball at 70°C is dropped in a mug containing water at 40°C. The heat flows from the iron ball to the water. REASON (R): Heat always flows from a body at a high temperature to a body at a low temperature. Read the statements carefully and choose the correct answer of the question. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	1
SECTION B (2 MARKS)			
Q6	Q6	SET C1 Draw a circuit diagram (not picture drawing) to show a cell, one switch, a glowing electric bulb and direction of electric current. Ans-	

		 <p>SET C2 Following picture shows four cells fixed on a board. Draw lines to indicate how you will connect their terminals with wires to make a battery of four cells. Draw the diagram on your answer sheet.</p>  <p>Ans-</p> 	<p>($\frac{1}{2} \times 4 = 2$) for each correct labelling</p> <p>2</p>
Q7	Q7	<p>Set C1 Name the source from which litmus solution is obtained. What is the use of this solution? Ans- Litmus solution is extracted from lichens. Litmus solution is used as an indicator to find the acidic and basic nature of a solution.</p> <p>Set C2 Explain why: a) Factory waste is neutralized before disposing it into the water bodies. b) The turmeric stain on a white shirt turns red on washing with soap solution.</p> <p>Ans- a) This is because the wastes of many factories contain acids. If they are allowed to flow into the water bodies, the acids will kill fish and other organisms. b) This is because soap solution is basic and bases give red colour with turmeric.</p>	<p>1+1</p> <p>1+1</p>
Q8	Q8	<p>SET C1 Identify the different labelled parts ('A' and 'B') of the digestive system of a ruminant.</p>	



Ans. A= Stomach, B= Oesophagus

SETC2

Write the end products of digestion of the following food components.

a) Carbohydrates

b) Proteins

Ans-a) Carbohydrates – Glucose (simple sugar)

b) Proteins – Amino acids

1×2=2

1×2=2

Q9

Q9

Give the composition of oxygen and carbon dioxide in inhaled and exhaled air.

Ans-



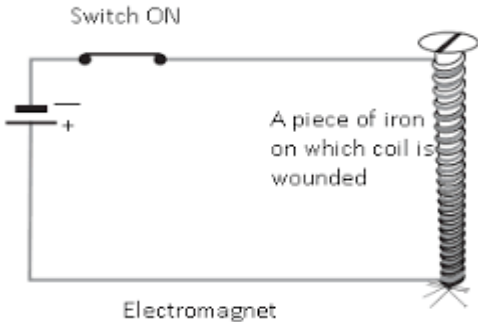
Gases	Inhaled air	Exhaled air
Carbon dioxide	0.04%	4.4%
Oxygen	21%	16.4%

$\frac{1}{2} \times 4 = 2$

SECTION C (3 MARKS)

Q10	Q12	<p>Read the given passage and answer Q10 (a) to Q10 (c), based on the passage and related studied concepts:</p> <p>Heat flow takes place from one body to the other having different temperatures. Light a candle. Keep one hand above the candle flame and one hand on the side of the flame as shown in the diagram below.</p> <p>HAND 'B' (ABOVE THE FLAME) 5 CM AWAY</p> <p>HAND 'A' (AT SIDE) 5 CM AWAY</p> <p>a) Which hand feels hot and why? b) Name the mode of transfer of heat in case of hand A. c) How does the heat travel in liquids?</p> <p>Ans- a) Hand B because heat is reaching the hand by both convection and Radiation b) Hand A- radiation c) Hot liquid on gaining heat rises up and cold liquid from the surroundings moves down towards the source of heat.</p>	1 1 1
Q11	Q11	<p>a) After heavy exercise, we sometimes get cramps in our muscles. Name the substance which gets formed in our muscles. b) Suggest any two ways to get relief from cramps. c) Write the word equation of chemical reaction of Aerobic respiration in our body.</p> <p>Ans- a) Lactic acid b) We get relief from cramps after a hot water bath or massage. c) Aerobic respiration (in presence of oxygen):</p> $\text{Glucose (food)} \xrightarrow{\text{presence of oxygen}} \text{Carbondioxide} + \text{Water} + \text{Energy}$	1 1 1
Q12	Q10	<p>a) What colour will be obtained if a few drops of China rose solution are added to i) Lemon juice ii) Soda water b) Why is calamine applied on the skin when an ant bites?</p> <p>Ans- a) Lemon juice- Magenta colour Soda water- Green colour b) When an ant bites, it injects formic acid inside the skin. Calamine consists of Zinc carbonate which is basic in nature. Hence, calamine neutralises the effect of formic acid to bring relief for the affected person.</p>	1 1 $\frac{1}{2} + \frac{1}{2}$

SECTION D (5 MARKS)

Q13	Q14	<p>a) Identify the organ of the digestive system and explain its structure.</p>  <p>b) Name three secretions of the inner lining/wall of the organ shown above and write the function of each.</p> <p>Ans- a) Stomach</p> <p>Structure- Thick bag like structure, shape like flattened J and is the widest part of alimentary canal. (Two points)</p> <p>b) <u>Mucous</u>- protects the lining of the stomach from the effects of hydrochloric acid.</p> <p><u>Hydrochloric acid</u>- The acid kills many bacteria that enter along with the food and makes the medium in the stomach acidic and help the digestive juices to act (any one function)</p> <p><u>Digestive juices</u>- The digestive juices break down the proteins into simpler substances.</p> <p style="text-align: center;">OR</p> <p>a) Identify the organ of the digestive system and describe its structure.</p>  <p>b) Name the finger -like outgrowths present in the inner walls of this organ. Give their function.</p> <p>c) This organ receives secretions from the _____ and the _____.</p> <p>Ans- a) Small intestine</p> <p>Structure- Highly coiled and about 7.5 metres long.</p> <p>b) Villi. The villi increase the surface area for absorption of the digested food.</p> <p>c) Liver and Pancreas.</p>	<p>1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>OR</p> <p>1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p> <p>1+1</p> <p>$\frac{1}{2} + \frac{1}{2}$</p>
Q14	Q13	<p>a) The device shown in the figure below is an electromagnet. Name the property on which this device is based. Mention any two uses of this device in our daily life.</p> 	

	<p>b) Boojho made an electromagnet by winding 50 turns of wire over an iron screw. Paheli also made an electromagnet by winding 100 turns over a similar iron screw. Which electromagnet will attract more pins? Give reasons.</p> <p>Ans- a) Magnetic effect of current.</p> <p>USES OF ELECTROMAGNET-</p> <ul style="list-style-type: none"> • The electromagnets are used to separate magnetic material from the junk. • Doctors use tiny electromagnets to take out small pieces of magnetic material that have accidentally fallen in the eye. • Many toys also have electromagnets inside them. (any two) <p>b) Electromagnet made by Paheli attracts more pins as compared to Boojho. Since the magnetic effect directly depends on the number of turns of the coil. Paheli's coil has more turns than Boojho. Therefore, her electromagnet is stronger than Boojho. (one mark for correct choice and one mark for reasoning)</p> <p style="text-align: center;">OR</p> <p>a) Zubeda made an electric circuit using a battery of two cells, a switch, connecting wires and a bulb. When she put the switch in the 'ON' position, the bulb did not glow. Help Zubeda in identifying any three possible defects in the circuit.</p> <p>b) State any two factors on which the amount of heat produced in a wire depends.</p> <p>Ans-a)</p> <ul style="list-style-type: none"> - Connections may be loose. - Electric cell may be used up. - Switch may not be functioning well. - Bulb may be fused. - Positive terminal of the first cell is not joined to the negative terminal of the second cell. (any three) <p>b) The amount of heat produced in a wire depends on its material, length and thickness. (any two)</p>	<p>1</p> <p>1+1</p> <p>1+1</p> <p>1×3=3</p> <p>1×2=2</p>
--	--	---