KOTHARI INTERNATIONAL SCHOOL, NOIDA

END TERM EXAMINATION, SESSION: 2024-25

GRADE: 7 SUBJECT: SCIENCE

SET A

SECTION B (SUBJECTIVE)

DAY & DATE: MONDAY- MARCH 03,2025 **TIME ALLOTTED: 2.30 HOURS**

MAXIMUM MARKS: 60 **GRADE/SEC: _____**

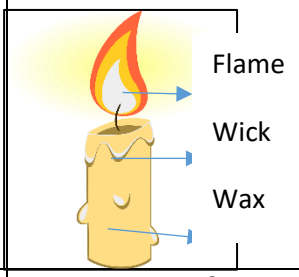
NAME: _____ **ROLL NO: _____**

GENERAL INSTRUCTIONS:

i). This question paper contains 22 questions. All questions are compulsory.
ii). Question Nos.1 to 7 carries 2 mark each.
iii). Questions Nos. 8 to 13 carries 3 marks each.
iv). Questions Nos. 14 to 18 carries 3 marks each.
v). Questions Nos. 19 to 22 carries 4 marks each.
vi). There is no overall choice. However, an internal choice has been provided in Question No. 22.

SECTION A

Q1. **In the figure below,** **(2)**



a) What changes occur in the wax and the wick?

b) Explain the type of changes observed.

Q2. **Give reasons for the following.**

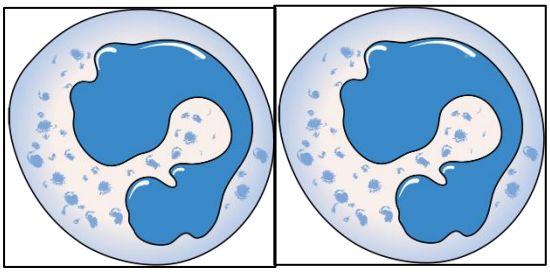
(a) Fresh milk is boiled before consumption while processed milk stored in packets can be consumed without boiling. **(1)**

(b) Mosquitoes can be controlled by preventing water stagnation though they do not live in water. Why? **(1)**

Q3. **(a) Identify the different types of blood cells shown:** **(1)**

i)

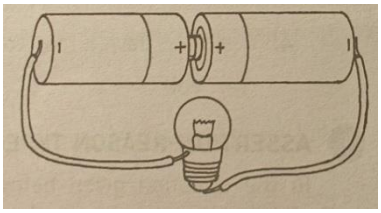
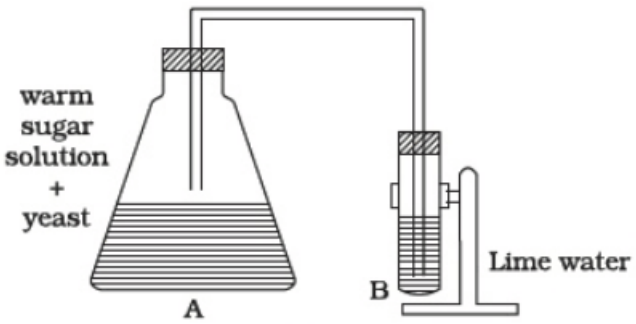
ii)

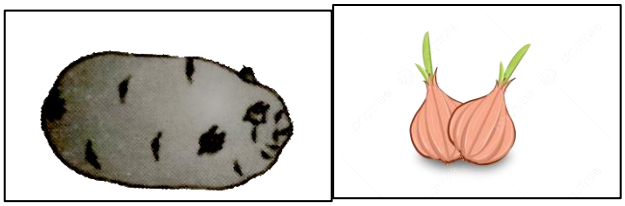


(1)

(b) Write the functions of each type of blood cell shown in the above picture.

Q4. **(a) Draw the circuit diagram to represent the circuit shown alongside -** **(1)**

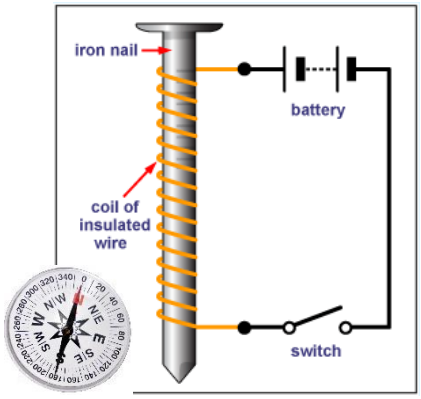
	 **(b) Observe and write down the necessary changes. If any.**	**(1)**
Q5.	**Unscramble the jumbled words underlined in the following statements** (a) **Curbossulite** is an air-borne disease caused by a bacterium. (b) **Xanrhat** is a dangerous bacterial disease. (c) Yeasts are used in the wine industry because of their property of **meronettinaf.** (d) Cells of our body produce **santiidobe** to fight pathogens.	**(0.5x4=2)**
Q6.	**If you were to store three pieces of bread under different conditions for a week, in which of the following places would mould grow the fastest, and why?** **Bag A: Stored in a dark place without moisture added.** **Bag B: Stored in the refrigerator.** **Bag C: Stored in a dark place with added moisture.** **Which bag would have the most mould growth, and what factors would contribute to that?** **A=**  **B=**  **C=** 	**(2)**
Q7.	**A bus is moving at 20 ms^{-1}. How much distance in kilometres will the bus cover in 25 minutes?**	**(2)**
	SECTION B	
Q8.	 Observe the setup given and answer the following questions. **(a) Name and define the process occurring in the above setup.** **(1)** **(b) Which gas is released in A?** **(1)** **(c) What changes will you observe in B when the released gas passes through it?** **(1)**	

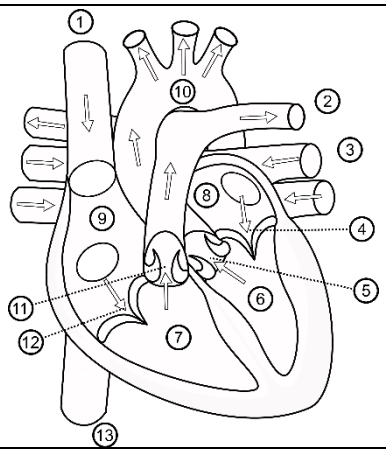
Q9.	Humans have two major organs that perform the transport of materials. Organ **'A'** is bean-shaped and dark red in colour lying just above the waist. It helps in the removal of **'Q',** a waste material from blood. The organ **'S'** is the opening at the end of the urinary bladder through which the waste material is eliminated. Organ **'B'** lies in the chest cavity slightly tilted towards the left side. It pumps continuously and pours liquid **'C'** into arteries and through a very fine tube-like structure **'D'** distributes the liquid to various parts of the body. **What are the names of these organs?**	**(0.5x6=3)**
Q10.	Write the correct one-word answer for each of the following descriptions: **(a) A device that prevents excess current from flowing in a circuit.** **(b) A long, thin wire twisted into a coil that emits light when current passes through it.** **(c) A coil of wire that generates heat when current flows through it.** **(d) The material used to make the element of an electric heater.** **(e) The material used to make the filament of a bulb.** **(f) The gas used to fill an electric bulb.**	**(0.5x6=3)**
Q11.	**Look at the pictures of an onion and a potato, and answer the questions.**  **(a) Name the mode of reproduction shown here.** **(b) Are they vegetative or reproductive parts?** **(c) Write the similarities and differences between them.** **(d) Write two advantages of this type of reproduction?** **(e) Which part of the potato be used to produce another potato?** **(f) Give two examples of plants reproduce by cutting.**	**(0.5x6=3)**
Q12.	An electric bell consists of a coil, a hammer, a switch, and a gong. When the switch is closed, current flows through the coil, creating a magnetic field that attracts the hammer towards the gong, producing a sound. The hammer then springs back, and the switch opens, stopping the current flow. The cycle repeats rapidly.	

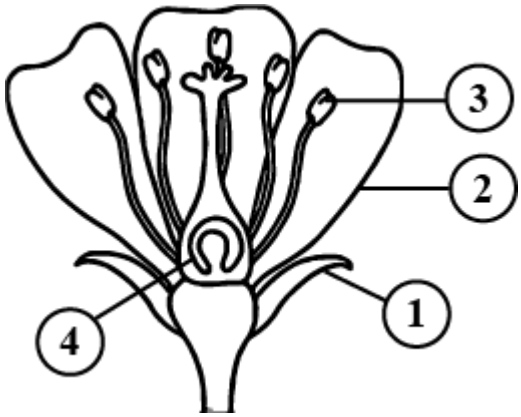
	Answer the following questions: **(a) Explain how the magnetic field created by the coil causes the hammer to move. What role does the current play in this process?** **(b) What would happen to the electric bell's function if a non-magnetic material (like plastic) is used for the core of the coil instead of an iron core? Explain why this would happen.**	**(2)** **(1)**
Q13.	**The table below represents the distance travelled by a vehicle on a road. Draw the distance-time graph the vehicle. What type of motion do you see?**	**(3)**

Time (in min)	2	4	6	8	10	12	14	16	18
Distance travelled (in km)	2	4	6	7	8	9	9	9	9

SECTION C

Q14.	**"Arrange the following statements in the correct order in which they occur during the formation and removal of urine in human beings."** **(a) Ureters carry urine to the urinary bladder.** **(b) Wastes dissolved in water are filtered out as urine in the kidneys.** **(c) Urine stored in the urinary bladder is passed out through the urinary opening at the end of the urethra.** **(d) Blood containing useful and harmful substances reaches the kidneys for filtration.** **(e) Useful substances are absorbed back into the blood.** **(f) Filtration in the kidneys produces a fluid called filtrate, which contains waste products and excess water.**	**(3)**
Q15.	Observe the diagram below showing an electromagnet created by a coil of wire wound around an iron core, connected to a variable power supply. There is a magnetic compass placed near the electromagnet to measure the magnetic field's strength.  **Based on the diagram, answer the following questions:** **(a) How would increasing the current in the circuit affect the electromagnet's magnetic field? Explain why.**	**(1)**

	(b) What would happen to the strength of the magnetic field if the number of turns in the coil is doubled while keeping the current constant?	**(1)**
	(c) If the iron core is replaced with a plastic core, how would the magnetic field strength change and why?	**(1)**
Q16.	**Look at the diagram of the human heart below.**  **(a) Identify and label the four chambers of the heart.** **(b) Describe how blood flows through the heart, starting from when it enters the right atrium to when it leaves the left ventricle.** **(c) How does the oxygen-rich and oxygen-poor blood travel to the lungs and the rest of the body?**	**(1)** **(1)** **(1)**
Q17.	**Give a reason for the following:** **(a) Flowers are important to plant.** **(b) Coconut seeds have fibrous coats.** **(c) Wind-pollinated flowers are light and small.**	**(1)** **(1)** **(1)**
Q18.	Rahul is riding his bicycle along a straight road. For the first 10 minutes, he rides at a constant speed of 15 km/h, covering a distance of 2.5 km. After that, he speeds up and rides at 25 km/h for the next 5 minutes, covering 2.08 km. **Answer the following questions:** **(a) Was Rahul's motion during the first 10 minutes uniform or non-uniform? Justify your answer.** **(b) What is the total distance Rahul covered in the entire journey?** **(c) If Ravi had maintained a constant speed of 20 km/h throughout the entire journey, how much time would he have taken to cover the same total distance?**	**(1)** **(1)** **(1)**
	SECTION D	
Q19.	**(a) Read the passage given below and answer the questions that follow.** Chemical changes are very important in our lives. All new substances are formed as a result of chemical changes. For example, a medicine is the end product of a chain of chemical reactions. If a metal is to be extracted from an ore, such as iron from an iron ore, a series of chemical changes takes place. Useful new materials such as plastics and detergents are produced by chemical reactions.	**(0.5x2=1)**

	i) When iron nails are dipped in copper sulphate solution. The blue colour of solution of copper sulphate changes to _____. **ii) _____ are metals used for galvanizing iron.** **(b) Briefly note the various methods used to prevent rusting. What are the advantages and disadvantages of such processes? Explain with the help of suitable examples.**	**(3)**
Q20.	In a medical scenario, a patient is experiencing difficulty in oxygenating tissues, resulting in fatigue and poor circulation. The doctor suspects a problem with the blood vessels and wants to understand how the structure and function of arteries, veins, and capillaries contribute to proper circulation and oxygen delivery. **Based on this situation, explain the role of each type of blood vessel in the circulatory system and how their specific characteristics enable them to perform their functions.**	**(4)**
Q21.	**Look at the given picture and answer the following questions.** **(a) Label the given picture of the flower.** **(b) Identify the male and female reproductive part of the given flower.** **(c) How does Pollination take place in the given flower?**  	**(2)** **(1)** **(1)**
Q22.	**A pendulum consists of a small metal ball attached to a string. Maya conducts an experiment in which she swings the pendulum from one side and measures how long it takes for the pendulum to complete 10 full oscillations (back and forth motions). She finds that it takes 20 seconds for the 10 oscillations.** **Answer the following questions:** **(a) Define the Time Period and Calculate the time taken for one complete oscillation (period) of the pendulum.** **(b) If Maya increases the length of the string, how do you think the time period (the time for one complete oscillation) would change? Explain why.**	**(2)** **(2)**

	OR **A car travels from point A to point B, covering a distance of 180 kilometers. It first travels for 2 hours at a speed of 60 km/h, then for 3 hours at a speed of 45 km/h, and finally for 1 hour at a speed of 90 km/h.** **Answer the following questions:** **1. What is the total time taken by the car to travel from point A to point B?** **2. What is the average speed of the car for the entire journey?** **3. If the car had travelled the entire distance at a constant speed of 60 km/h, how much time would it have taken to reach point B? How does this compare with the actual time taken?**	**(1)** **(1)** **(2)**