KOTHARI INTERNATIONAL SCHOOL, NOIDA
ANNUAL EXAMINATION, SESSION: 2025-26
GRADE: 7 SUBJECT: SCIENCE
SET B SECTION B (SUBJECTIVE)

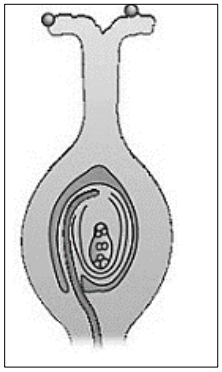
DAY & DATE: TUESDAY - FEBRUARY 24, 2026 **MAXIMUM MARKS: 60**
TIME ALLOTTED: 2 HOURS 30 MINUTES
NAME: _____ **ROLL NO: _____**

GENERAL INSTRUCTIONS:

1. ***This question paper consists of 4 pages and contains 19 questions.***
2. ***Read the question paper carefully***
3. ***All questions are compulsory to attempt.***
4. ***No question to be attempted on the question paper.***

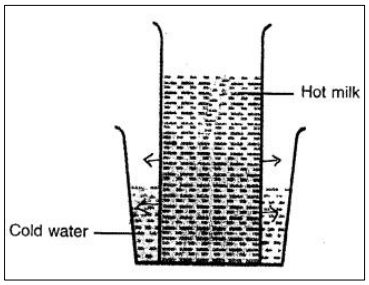
Q1. Rusting of iron objects is faster in coastal areas than in deserts. Why? **2**

Q2. Show the direction of the pollen tube from the pollen on the stigma in the embryo sac in the given diagram. (Draw and label the diagram in your answer sheet). **2**



Q3. A car covers 20 km in the first hour and cover 30 km in the last 4 hours. Find its average speed. **2**

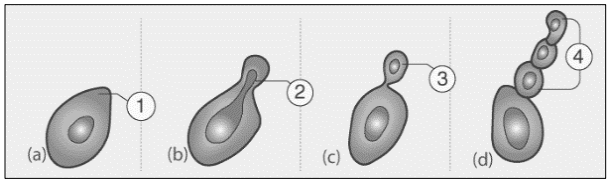
Q4. The given figure shows a glass tumbler containing hot milk which is placed in a tub of cold water. State the direction in which heat will flow and why? **2**



Q5. In the human circulatory system, arteries generally carry oxygen-rich blood and veins carry oxygen-poor blood. However, the pulmonary artery and pulmonary vein do not follow this rule.

Explain **why the pulmonary artery and pulmonary vein are called exceptions** to the general rule of arteries and veins. Support your answer with suitable reasoning related to the **type of blood they carry** and their **function**. **2**

Q6.



Observe the diagram carefully and answer the questions that follow: **2**

a) Explain the process of asexual reproduction shown in the diagram.
b) Name and label the stages numbered **1, 2, 3, and 4** in the diagram.

Q7. Draw a distance-time graph from the data given in the table showing the distance covered by a racing car. Which type of motion is represented by the given graph? **2+1**

Time (s)	Distance (in m) From start point
0	0
1	10
2	25
3	45
4	65
5	90

Q8. When an object made of material P is kept immersed in the blue coloured solution Q, then a chemical change takes place to form a green coloured solution R and a brown layer of substance S is deposited on the object. P is used for making nails and S is used for making copper wires.

a) What could be P, Q, R & S? **2**
b) Write a word equation for this process. **1**

Q9. A white shirt has a yellow stain of curry. When soap is rubbed on this shirt during washing, the yellow stain turns red. On rinsing the shirt with plenty of water, the red stains turns yellow again. **3**

a) Name the natural indicator present in curry stain.
b) What is the nature of soap (acidic or basic) as shown by the indicator present in curry stain?
c) Name a synthetic indicator which will give pink colour with soap solution.

Q10. During a nature walk, Riya observes that some plants around a pond have light, fluffy seeds that float in the air, while plants near the river have seeds with spongy coverings that float on water. After a few weeks, she notices new plants growing far away from the parent plants.

a) Identify the two agents responsible for dispersal of seeds in the above situation. **1**
b) Explain how the structure of seeds helps in their dispersal by these agents. **2**

Q11. a) Explain why lime water turns milky on passing carbon dioxide gas into it. **1**
b) What happens when magnesium oxide is dissolved in water? Write a word equation for this process. **2**

Q12. There is a pair of bean-shaped organs **P** in the human body towards the back, just above the waist. A waste product **Q** formed by the decomposition of unused proteins in the liver is brought into organs **P** through blood. The numerous tiny filters **R** present inside the organs **P** clean the dirty blood by removing the waste product **Q**. If due to some reason, the organs **P** of a person stop functioning completely, the person's blood can be cleaned periodically by a process **S** so as to save his life.

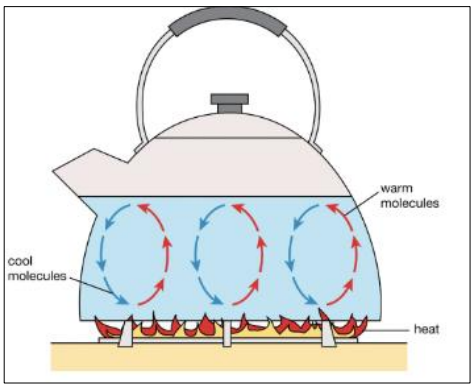
Read the given description carefully and answer the following:

a) Identify the organs **P**, the waste product **Q**, and the tiny filters **R** mentioned above. **2**
b) Name the process **S** by which the blood is cleaned artificially if the organs **P** stop functioning. **1**

Q13. The flask shaped organ X at the centre of a flower is surrounded by a number of little stalks Y having swollen tops which lie just inside the ring of petals. **3**

a) Name the organ X &Y.
b) Which part of organ X contains gametes?
c) What does the swollen top of organ Y contain?

Q14.



a) Based on the picture, explain why the arrows inside the water form circular paths when the pot is heated. Name the mode of heat transfer responsible for this process. **2**

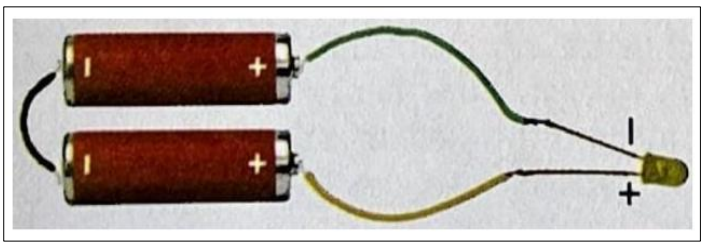
b) Convert 104 degree Fahrenheit to degree Celsius. **2**

Q15. **2**

a) A cheetah runs a distance of 200 metres in 10 seconds. What is the speed of the cheetah in
i) m/s ii) km/h

b) A simple pendulum takes 15 seconds to complete 5 oscillations. What is the time period of the pendulum? **2**

Q16.

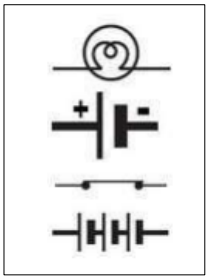


a) An LED needs two cells connected in series to glow. Tanya assembled an electrical circuit using an LED and two cells, as shown in the figure below. **2**

i) Will the LED glow in this circuit? Give a reason for your answer. **2**

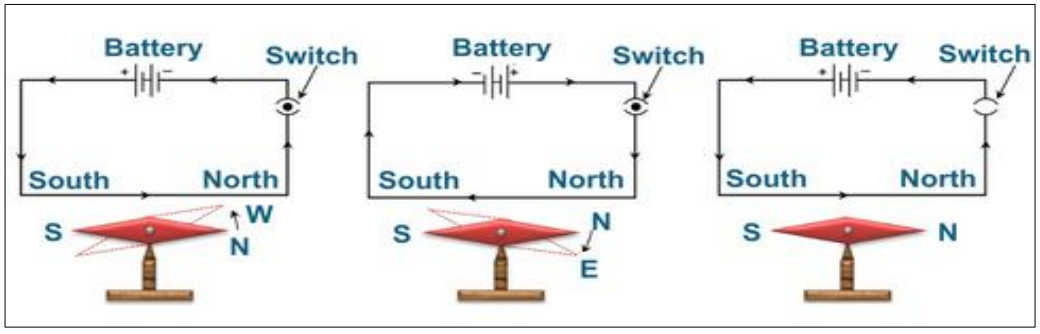
ii) If the LED does not glow, redraw the circuit showing the correct wire connections so that the LED glows.

b) Write the electric components corresponding to the following symbols.



Q17. a) The diagram shows a magnetic compass placed near a straight wire connected to a battery and a switch. **2**

i) In which arrangement does the compass needle **not show any deflection**? Give one reason.
ii) What does the deflection of the compass needle in the other arrangements show about the **effect of electric current**?

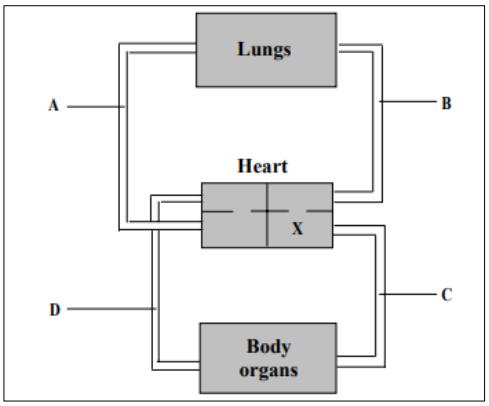


b) Write a short note on the **excessive flow of electric current** in an electric circuit. In your answer, briefly explain **short circuit** and **overloading**, and mention **one harmful effect** of each. **3**

Q18. a) Explain how, water moves from the soil particles to the xylem vessel in the centre of a root. **2**

b) Name any two animals which do not have blood (or circulatory system). **1**

c) The diagram shows a plan of part of the circulation.



i) Name the type of blood vessel labelled C & D.

ii) What happens to the amount of oxygen in the blood as it passes through the body organs? **2**

Q19. a) Meera was stung by an insect while playing in the garden. The affected area became red and itchy. Her mother applied calamine solution on the skin, and after some time, Meera felt relief.

i) Why does an insect sting cause irritation on the skin? **2**

ii) How does calamine solution help in reducing irritation?

b) Write a word equation for the neutralisation reaction between calcium oxide and sulphuric acid. Also write the chemical formulae for all the substances involved. **3**