

Science

Writing Time : 2 Hours
Total Marks : 100

READ THE FOLLOWING DIRECTIONS CAREFULLY:

1. In this **booklet**, you will find 25 questions in Section A and 5 questions in Section B. You must answer **all** the questions. Each question in Section A is worth **2 marks**.
2. All answers for Section 'A' and 'B' **must** be written in the answer sheets provided by the school.
3. Do **not** start writing the answers to questions until you are given permission to do so.
4. You will have 2 hours during which to answer all the questions.
5. Once the examination begins, you will not be allowed to ask questions, speak with others or move around.
6. If you finish before the time is over, close the answer sheets, and sit quietly. You are allowed to leave the examination room **ONLY** half-an-hour before the completion of the stipulated time of the paper.

DO NOT forget to write your name and class/section.

IF YOU HAVE ANY QUESTIONS, ASK THEM NOW!

TURN PAGE

(15 Minutes is to be allowed for reading as well as for teachers on duty to explain the instructions)

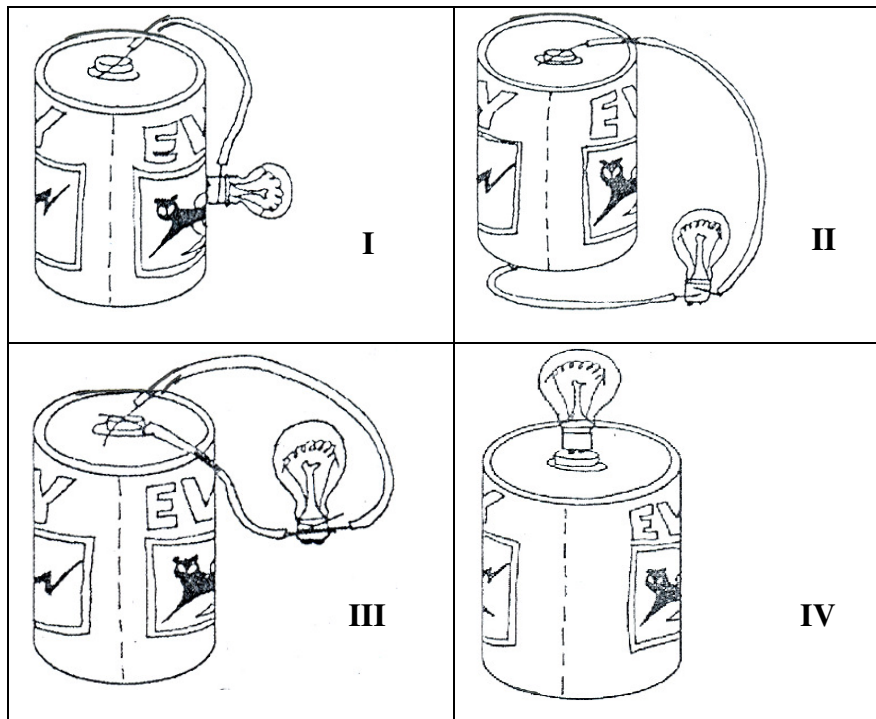
SECTION A
25 Questions – 50 Marks
Answer ALL questions

Direction: Each question in this section is followed by four possible choices of answers. Choose the most correct answer and write it down in the answer sheets provided by the school.

1. Which of the following is a man-made material?
 A milk
 B sand
 C wood
 D plastic

2. In a salt solution, the solvent is the
 A salt water.
 B water.
 C salt.
 D gas.

3. Which of the following circuit is correct?



- A I
 B II
 C III
 D IV

4. All of the following are examples of conductors **EXCEPT**
 - A aluminium foil.
 - B rubber band.
 - C coin.
 - D nail.

5. What happens when more batteries are connected in a circuit?
 - A The brightness of the bulb will remain same.
 - B The voltage will decrease.
 - C The bulb will be brighter.
 - D The bulb will not light.

6. What will happen when you rub a pen on a piece of woollen cloth and bring it close to bits of paper?
 - A Current will flow.
 - B Paper will jump towards the pen.
 - C Sparks of light will be produced.
 - D Pen will be pulled towards the bits of papers.

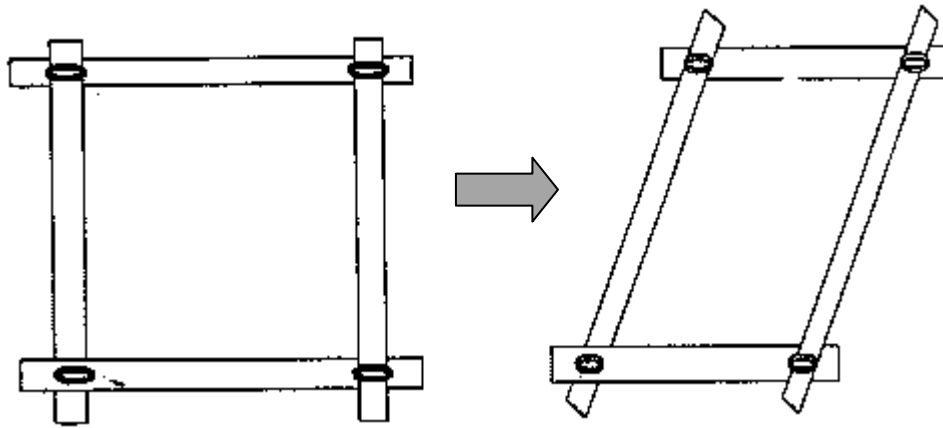
7. We can increase the strength of the magnet using electricity by
 - A increasing the size of the nail.
 - B increasing the length of the wire.
 - C increasing the number of turns of wire.
 - D decreasing the number of turns of wire.

8. Before a new life can develop, which one of the following processes takes place?
 - A reproduction.
 - B fertilization.
 - C germination.
 - D pollination.

9. Which of the following groups can be best cut into lengthwise sections?
 - A plums, lemons, peas and beans
 - B plums, apples, oranges and bananas
 - C peaches, peas, beans and lemons
 - D bananas, peas, beans and brinjals

10. The contraceptive that prevents sexually transmitted infections is
 - A DMPA.
 - B oral pills.
 - C condoms.
 - D vasectomy.

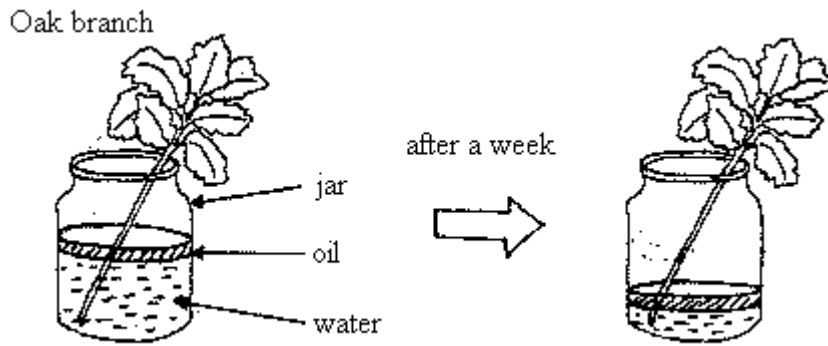
11. A square is not a rigid shape. It can be changed to make various parallelograms as shown in the figures given below.



- How can you make the above square rigid?
- A By adding a strip horizontally.
 - B By adding a strip diagonally.
 - C By adding a strip vertically.
 - D By bending it.
12. When the span of an arch is increased the
- A strength of the arch increases.
 - B strength of the arch decreases.
 - C length of the bridge decreases.
 - D strength of the arch remains same.
13. What type of bridge uses towers to hold the cables?
- A arch bridge
 - B bailey bridge
 - C cantilever bridge
 - D suspension bridge
14. In a tug of war, the force shown by the rope is
- A compressive force.
 - B frictional force.
 - C tensile force.
 - D shear force.
15. The weight of an object in water
- A increases.
 - B decreases.
 - C remains the same.
 - D increases the level of water.

16. The examples of the three states of matter are
A water, flour and milk powder.
B flour, milk powder and oxygen.
C milk powder, oxygen and water.
D oxygen, water and orange juice.
17. The products formed when yeast respire are
A alcohol and energy.
B oxygen and energy.
C alcohol and oxygen.
D alcohol and carbon dioxide.
18. What will happen to our body after a lot of sweating?
A Our body will cool down due to evaporation.
B There will be no effect on our body.
C Our body will be warmer.
D Our body will burn.
19. We can get back sugar crystals from its solution by
A melting.
B freezing.
C condensing the solution.
D evaporating the solution.
20. A boy observed a rainbow and identified the seven colours in it. If he mixed the seven colours together in equal proportion, what colour would he get?
A white
B red
C green
D blue
21. It is important to take antacid tablets when you have indigestion because antacid helps to
A digest the food.
B increase acidity.
C neutralize acidity.
D decrease alkalinity.
22. What will happen when two similar ends of a magnet are brought together?
A They will repel.
B They will attract.
C They will demagnetize each other.
D There will not be any effect on each other.

23. The energy chain for switching on a light using electricity from a solar panel is
A light energy → chemical energy → light energy → electrical energy.
B light energy → electrical energy → chemical energy → light energy.
C light energy → chemical energy → electrical energy → light energy.
D chemical energy → light energy → electrical energy → light energy.
24. A shadow is the shortest at
A 7.00 am.
B 10.00 am.
C 12.00 noon.
D 03.30 pm.
25. The experimental set-up given below is to investigate the rate of



- A condensation.
B transpiration.
C evaporation.
D heating.

SECTION B
5 Questions – 50 Marks
Answer ALL questions

Direction: Answer the questions given below as directed. All answers must be written in the answer sheets provided by the school. The intended marks for each question is given in brackets [].

Question 26

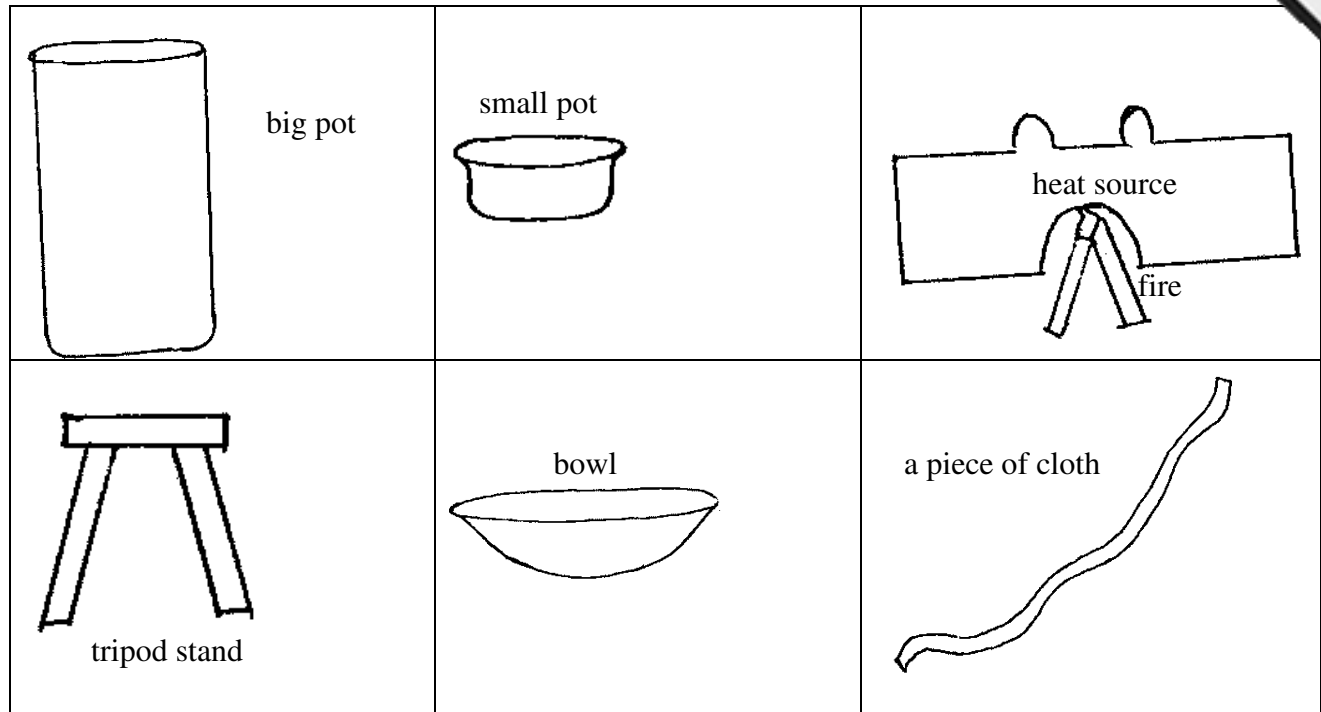
- (a) Fill-in-the-blanks. [5]
- (i) When a solute dissolves in a solvent a is formed.
 - (ii) The electrical effect of a radio is
 - (iii) The process by which plants make their own food is called
 - (iv) Objects which are more dense in water.
 - (v) The earth spins one full turn in hours.
- (b) Answer the following questions.
- (i) What is matter? [1]
 - (ii) Sugar is mixed in water to form a solution. Name the [2]
 - 1. solute,
 - 2. solvent.
 - (iii) Classify the following into natural and man-made rubbish. [2]
plastic, leaves, banana skin, bottles

Question 27

- (a) Match the following. [5]

Column A	Column B
(i) Static electricity	(a) inside fertilization
(ii) Frog	(b) magnet
(iii) Arch	(c) digestion
(iv) Saliva	(d) remains in one place
(v) Lodestone	(e) outside fertilization
	(f) egg shape

- (b) (i) With the help of a labelled diagram, use the following things given below to show the process of distillation.



- (ii) Give **TWO** examples each of a [2]
1. physical change,
 2. chemical change.

Question 28

- (a) Answer the following questions.
- (i) What is a switch? [1]
 - (ii) What is the function of the switch in a circuit? [1]
- (b) (i) Give **TWO** forms of energy produced by a lighted bulb. [2]
- (i) Draw a simple circuit. [2]

(c) What do you understand by the following terms?

1. magnetic field [1]
2. puberty [1]
3. contraception [1]

Question 29

(a) Draw a diagram of a bean seed and label the following parts: [3]

1. seed coat
2. embryo

(b) Pema took 3 thermometers and did an investigation. He wrapped one thermometer in a wet cloth, one in a dry cloth and one was kept without doing anything to it. He then placed them all in the sun for 15 minutes and recorded the following changes in temperature.

Thermometer	Temperature at start	Temperature after 15 minutes	Change in temperature
in wet cloth	15°C	17°C	2°C
in dry cloth	20°C	27°C	7°C
with no cloth	20°C	30°C	10°C

- (i) Which thermometer shows the minimum rise in temperature? Why? [2]
- (ii) What things must be kept the same to make the experiment fair? [1]

(c) State whether the following statements are **TRUE** or **FALSE**. [4]

- (i) Arches are weak shapes.
- (ii) Breathing out air is called inhalation.
- (iii) Carbon dioxide is used up during photosynthesis.
- (iv) Water cycle is a chemical change.

Question 30

- (a) Name the following.
- (i) A push or a pull.
 - (ii) The type of joint in our backbone.
 - (iii) The distance a bridge crosses.
- (b) List down **TWO** ways by which the following bridges can be made stronger.
- (i) a suspension bridge [2]
 - (ii) a cantilever bridge [2]
- (c)
- (i) Write down **TWO** advantages of using renewable energy sources over non-renewable sources. [2]
 - (ii) How does the burning of fossil fuels cause damage to our world? [1]