

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 in 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 one of the following objects is the best conductor of electricity?

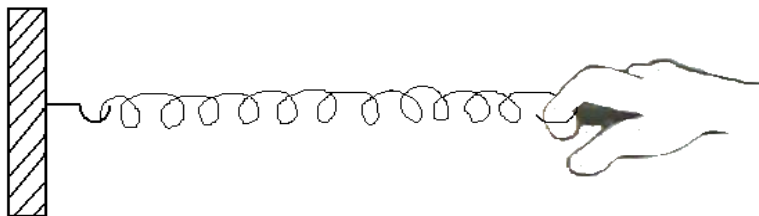
- A pencil
- B paper
- C water
- D nail

2. The letter 'X' in the table given below best represents

Property	Hard	Transparent	Opaque
Example	stone	'X'	wood

- A oil.
- B glass.
- C paper.
- D plastic.

3. Study the diagram given below carefully.



The kind of force shown in the above diagram is

- A compressive force.
- B elastic force.
- C tensile force.
- D shear force.

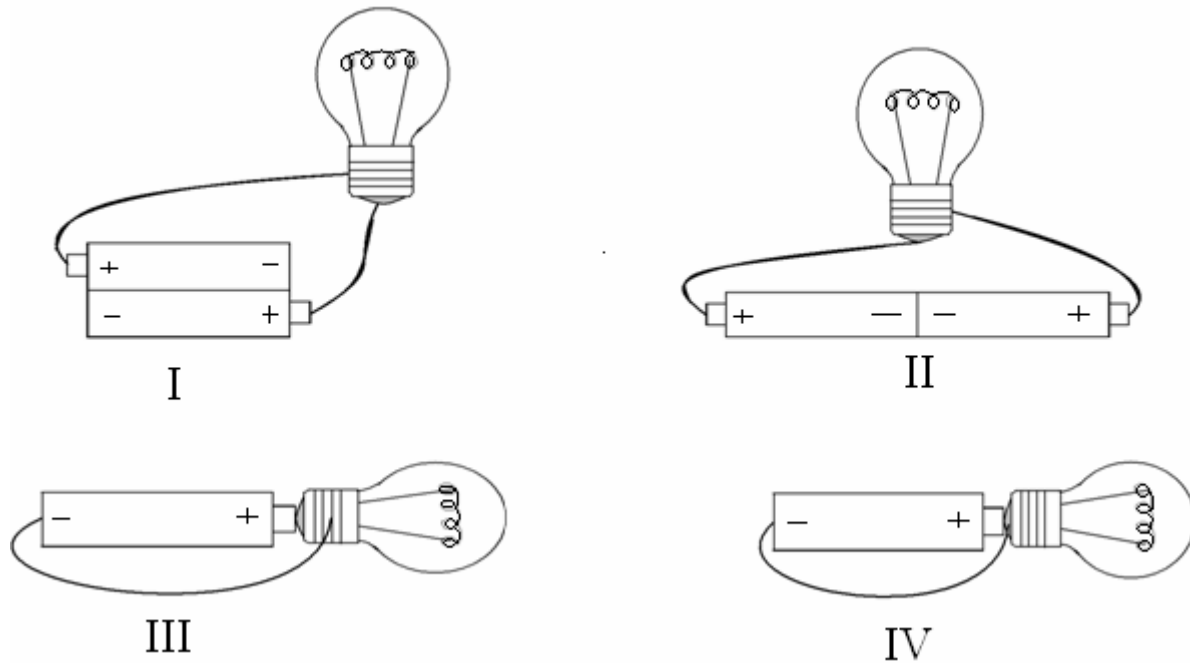
4. Stamen is the male part of the flower. It is made up of the

- A stigma and style.
- B anther and stigma.
- C ovary and filament.
- D anther and filament.

5. Which of the following is the correct match?

- A soda → acidic
- B lemon → alkaline
- C antacid → alkaline
- D toothpaste → acidic

6. Which of the following bulbs will light?



- A I
- B II
- C III
- D IV

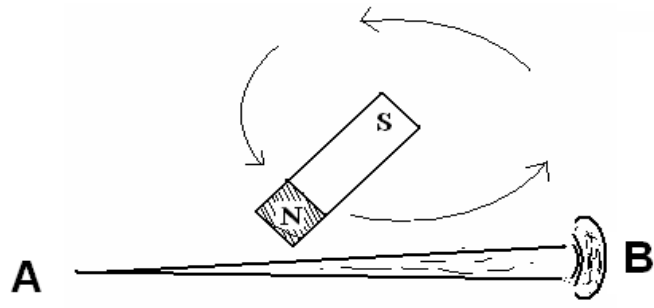
7. 'Sugar dissolves in water to form a sugar solution'. The solute in the solution is

- A water.
- B sugar.
- C milk.
- D salt.

8. What is the function of the twisted bundles in an egg?

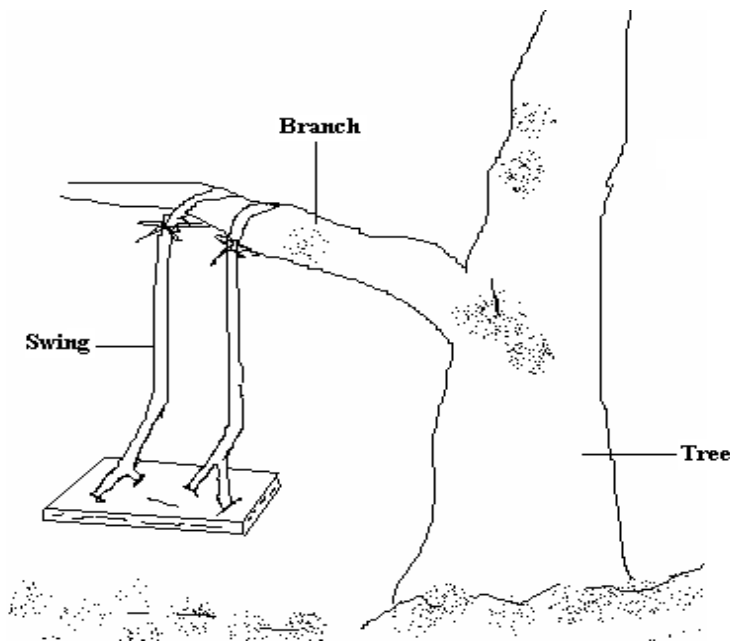
- A It provides air to the growing chick.
- B It protects the inner part of the egg.
- C It holds the inner part of the egg.
- D It holds the yolk in position.

9. The following diagram shows a 'Single Touch Method' of making a magnet out of a



The end 'B' of the nail will be

- A both north and south seeking.
 - B south seeking.
 - C north seeking.
 - D neutral.
10. Lhakpa made a swing from a branch of a tree as shown in the following diagram.



The same idea can be used to make

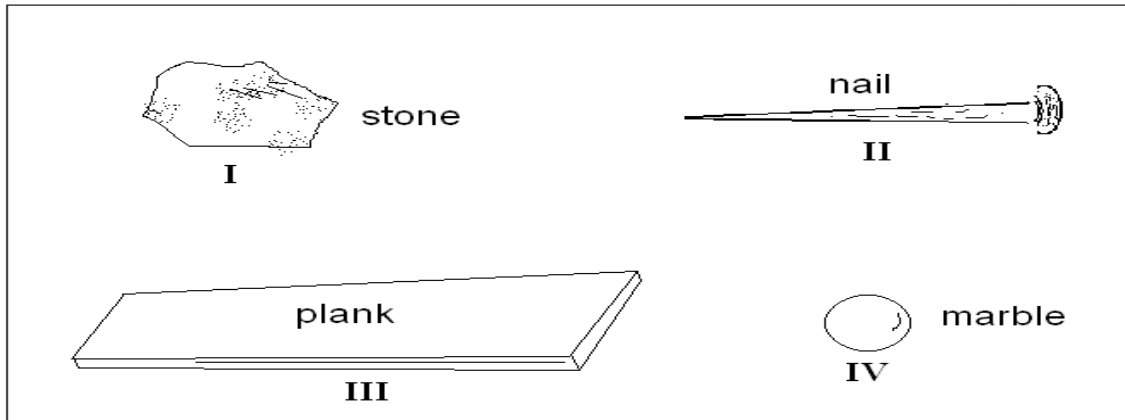
- A a steel bridge.
- B an arch bridge.
- C a cantilever bridge.
- D a suspension bridge.

11. Dawa made a simple catapult out of an elastic band. He tested the strength using paper pellets and recorded the result as given below.

Elastic band pulled/stretched	Distance travelled by paper pellet
2 cm	11 cm
4 cm	22 cm
6 cm	?
8 cm	44 cm

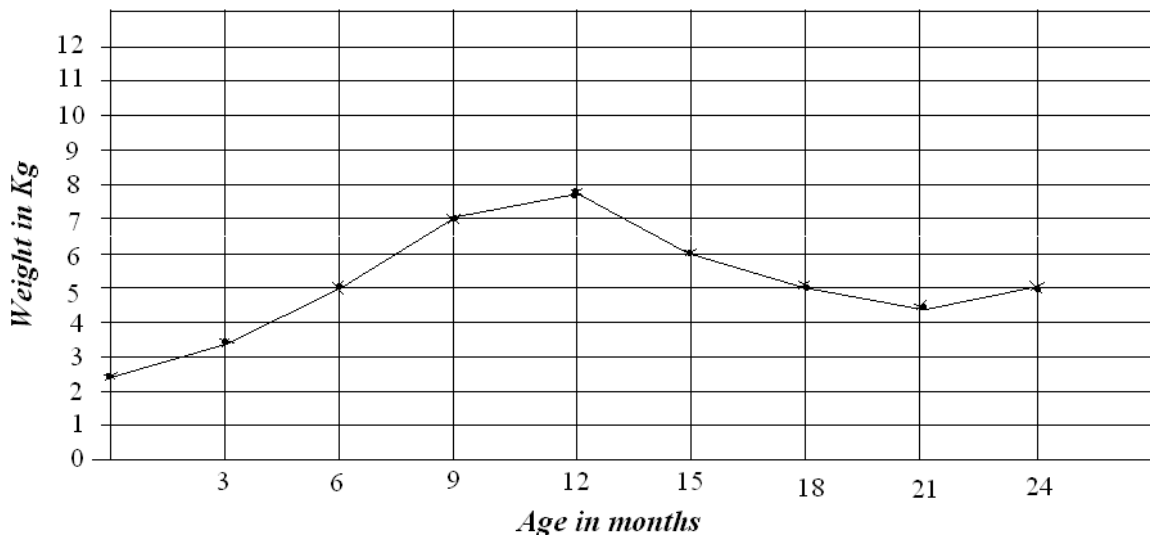
What distance would the paper pellet travel if the elastic band is pulled 6 cm?

- A 55 cm
 B 33 cm
 C 25 cm
 D 18 cm
12. When the span of the arch is shorter, its strength will be
 A none of the above.
 B stronger.
 C weaker.
 D same.
13. Which of the objects given below will float?



- A I
 B II
 C III
 D IV

14. Burning of a candle is a chemical change because
A the substance does not remain the same.
B the substance remains the same.
C no new substance is formed.
D the shape has changed.
15. Triangles are used in steel bridges because they
A are strong.
B look beautiful.
C are easy to make.
D can form different shapes.
16. The following are the ways to increase the strength of a magnet using battery **EXCEPT**
A using a new nail.
B using a rusted nail.
C using more batteries.
D increasing the turns of the wire.
17. Which statement below shows the similarity between respiration and burning?
A Both use energy.
B Both use oxygen.
C Both use carbon dioxide.
D Both are physical changes.
18. Given below is the Growth Chart of baby Wangmo.

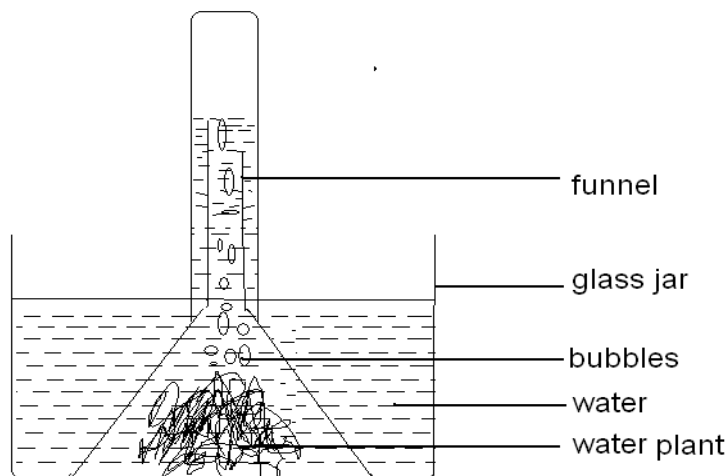


- What caused Wangmo's graph to go down after one year?
A She started eating solid food.
B She suffered from sickness.
C She gained weight.
D She was healthy.

19. We can find out how far the storm is by counting the number of seconds between the flash of lightning and thunder. (For every 3 seconds the storm is 1 km away.)

How far away is the storm if the thunder is heard 35 seconds after the lightning?

- A 106.6 km
 - B 105.6 km
 - C 35.6 km
 - D 11.6 km
20. Evaporation helps us in many ways. Which of the following is **NOT TRUE** about evaporation?
- A Sweating to keep cool.
 - B Drying meat for future use.
 - C Storing water in a plastic bottle.
 - D Keeping water in an earthen pot.
21. Study the following diagram carefully.



The above set-up was kept in the sun. After one hour, oxygen bubbles were seen. These are produced by the

- A heat from the sun.
 - B evaporation of water.
 - C respiration of the water plant.
 - D photosynthesis of the water plant.
22. Yeast powder is added to cooked grains and kept in a warm place because the yeast
- A needs more oxygen.
 - B is a micro organism.
 - C will respire at a faster rate.
 - D will respire at a slower rate.

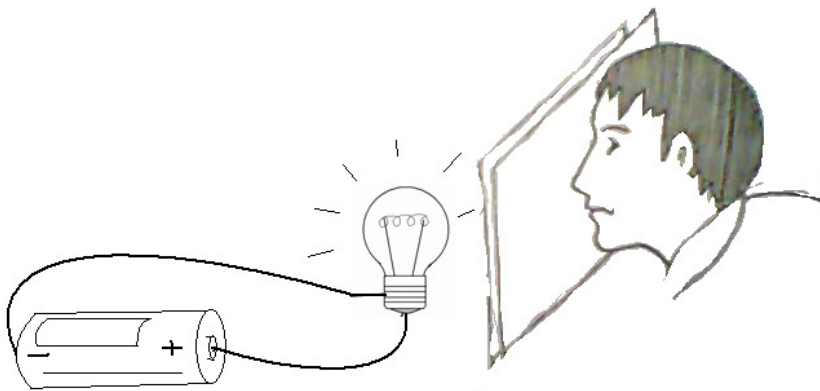
23. Here are four statements of the movement of water through plants. They are in the order.

- I Water is pulled up through the roots and trunk.
- II Water is taken in by the roots.
- III Water evaporates from the leaves.
- IV Water passes along the veins in the leaves.

The correct order of the process is

- A I, II IV, III.
- B I, IV, III, II.
- C II, I, IV, III.
- D II, I, III, IV.

24. The experiment given below is to see whether voltage affects the brightness of a bulb. Everything should be kept the same for each test **EXCEPT** the



- A number of batteries.
- B length of the wire.
- C kind of paper .
- D type of bulb.

25. The best food for a new born baby is breast milk because it

- I. contains all the nutrients.
- II. helps to protect from diseases.
- III. is sweet and tasty.

Which of the following is true?

- A I only
- B II only
- C I and II
- D II and III

SECTION B
5 Questions – 50 Marks
Answer ALL questions

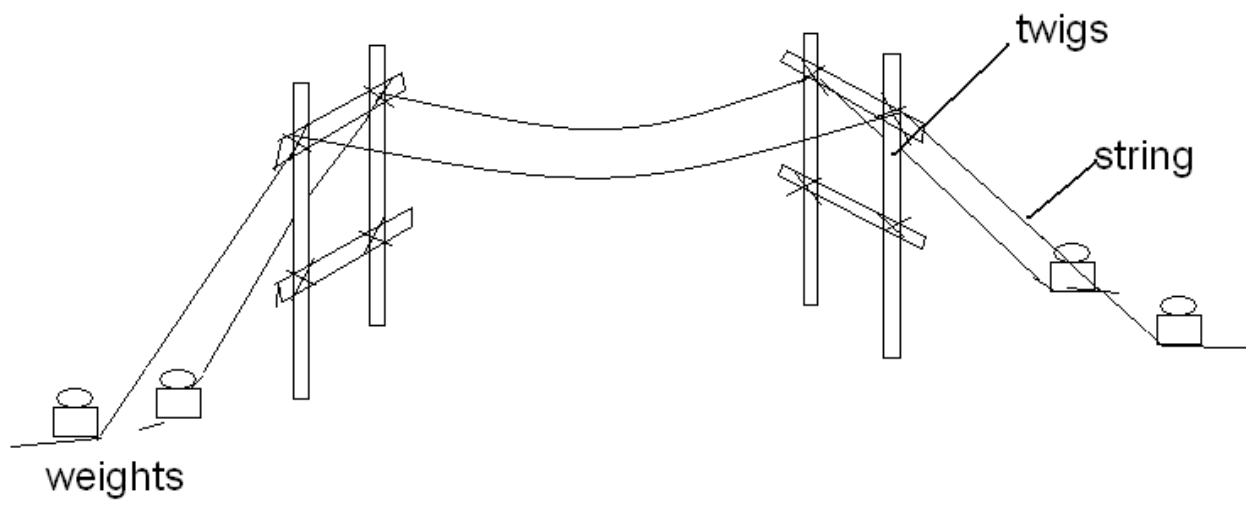
Direction: Answer the questions given below as directed. All answers must be written in the answer sheets provided by the school. The intended marks for each question is given in brackets [].

Question 26

(a) Fill in the blanks. [5]

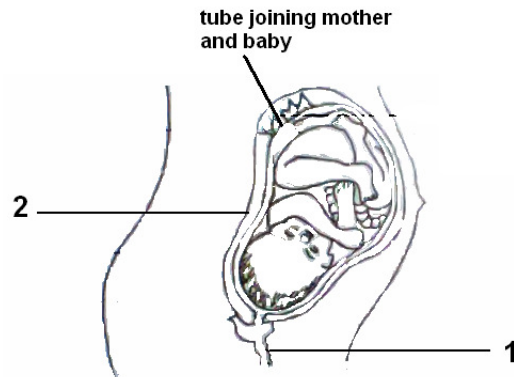
- (i) Gases and liquids are
- (ii) The magnetic force is stronger at the of the magnet.
- (iii) The baby plant in a seed is called
- (iv) The shape of an egg is an example of an
- (v) The group of colours in a rainbow is called

(b) Study the model of a bridge given below and answer the questions that follow.



- (i) Name the type of bridge shown in the above diagram. [1]
- (ii) State **TWO** ways of making the bridge stronger. [2]

(c) Look at the diagram given below and name the parts 1 and 2.



Question 27

(a) Match the following by choosing the words from the box. Rewrite the correct matching pairs. [5]

hip, shelter, clean, crystals, elbow, rubbish, filament

Column A	Column B
1. Garbage pit	
2. Bulb	
3. Hinge joint	
4. Sugar	
5. Habitat	

(b) Answer the following questions.

- (i) What is voltage? What is it measured in? [2]
- (ii) What is the change of state from gas to liquid called? [1]
- (iii) What happens to your breathing rate after exercise? Why? [2]

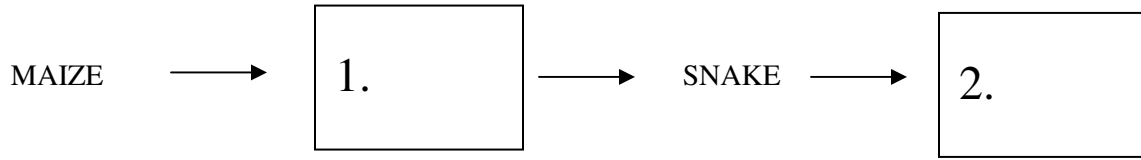
Question 28

(a) State whether the following sentences are **TRUE** or **FALSE**. [5]

- (i) Rubbing the comb on the hair produces current.
- (ii) The bulbs in parallel connection will have equal brightness.
- (iii) Clothes dry more quickly in a windy place.
- (iv) The seeds of dandelions are scattered by animals.
- (v) The arrow head of the compass always points south.

(b) Answer the following questions.

(i) Given below is a food chain. Copy and fill in the boxes with neat diagrams of animals to complete it.



(ii) Why is an electric bulb made of glass? [1]

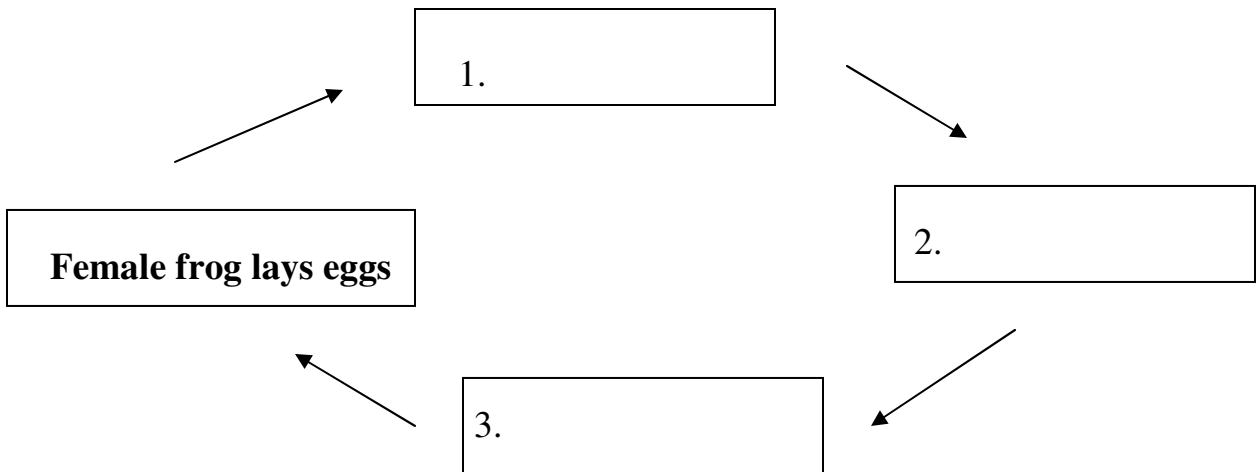
(iii) Write **ONE** use of a magnet. [1]

(iv) At what time of the day is the shadow shortest? [1]

Question 29

(a) Copy and rearrange the life cycle of a frog in the flow diagram given below. [2]

- Adult frog
- Fertilization in the water
- Eggs hatch into tadpoles



(b) What do you understand by the following terms? [3]

(i) Switch

(ii) Germination

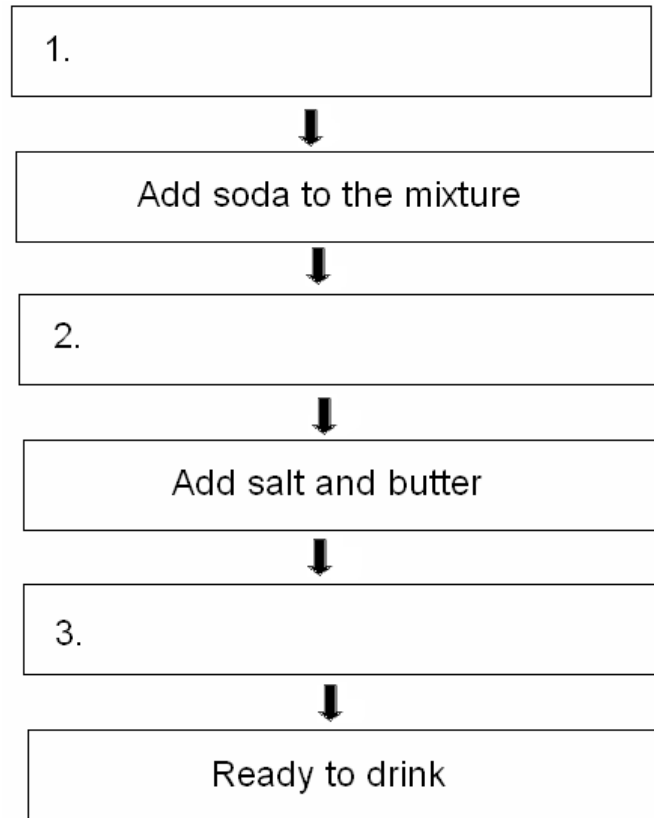
(iii) Matter

- (c) (i) Write **ONE** difference between renewable and non-renewable sources of energy. Give **ONE** example each. [2]
- (ii) Why are bamboo poles used at construction sites? [1]
- (iii) How can dzongs and flag poles be made more stable? [1]

Question 30

- (a) The flow chart given below shows the preparation of *suja* (butter tea). Use the processes given in the box to complete it. [3]

- ✓ Churn the mixture.
- ✓ Boil the tea leaves.
- ✓ Filter the mixture.



- (b) (i) Why does a ship float on water while a pin sinks? [2]
- (ii) It is not a good method to dry meat near the latrine. Why? [2]
- (iii) When is the best time to clean your teeth? Why? [2]
- (iv) Why are paper clips used for making switches? [1]