

## SUBJECT : INTEGRATED SCIENCE

Time : 2½ Hrs.

MM: 80

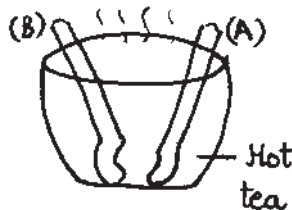
## General Instructions :

- (i) All questions are compulsory.
- (ii) Mention correct question number and part for each answer.
- (iii) Attempt the questions in the same sequence as given in question paper.

## PART-A

Q1. Answer the following in one sentence each : (1x15=15)

- (a) Study the diagram given below carefully and answer the questions that follow :

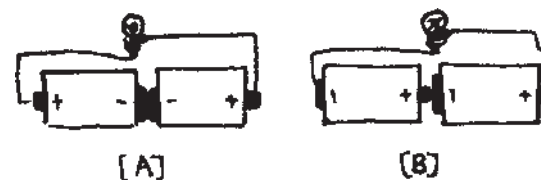


- (i) Spoon 'A' gets heated and is likely to be made of a \_\_\_\_\_.
- (ii) Spoon 'B' does not get heated and is likely to be made of \_\_\_\_\_.
- (b) Metals lose their lustre after sometime. Give reason.
- (c) Mustard : Oil Seeds : Coriander : \_\_\_\_\_.
- (d) Observe the given picture. Identify the disease the child is suffering from. Also write the cause of this disease.
- (e) A and B are examples of fibres obtained from chemical substances. Identify A and B.



(1)

- (f) X is the thin wire that gives off light in a bulb. Identify 'X'.
- (g) Name an object or material that has all the properties listed in each set given below :
- (i) elastic, opaque, inedible
- (ii) liquid, edible, obtained from seeds
- (h) The leaves of lily plant have parallel arrangement of veins whereas leaves of rose plant have reticulate arrangement of veins. What type of root system will they both have?
- (i) An overweight person wants to lose weight. Which nutrient should he avoid eating?
- (j) Give one example each of a (i) root vegetable (ii) fruit vegetable.
- (k) X and Y are two natural fibres. Both are obtained from the stems of their respective plants. Fibre X is rough but strong and is used to make ropes and gunny bags. While fibre Y is comparatively smoother and is used to make linen cloth. Name the fibres X and Y?
- (l) In which of the figures given below will the current flow? Give reasons.



- (m) A child's diet lacks proteins and carbohydrates for a long period of time. Write any two symptoms of deficiency of proteins and carbohydrates.
- (n) Which unit of length will be used to express
- (i) the distance between Mumbai and Pune
- (ii) the length of your jeans

(2)

- (o) Ketki's mother stopped her from touching an electric switch as her hands were wet. Why should Ketki not touch the electric switch?

PAPER-1  
2

PAPER-1  
2

Q2. Fill in the blanks : (1x5=5)

- (a) \_\_\_\_\_ is the known fixed quantity used for measurement.
- (b) Scarcity of rainfall causes \_\_\_\_\_.
- (c) \_\_\_\_\_ gets easily destroyed by heat during cooking.
- (d) The process by which excess of water is given out from the stomata as water vapour is \_\_\_\_\_.
- (e) \_\_\_\_\_ are the animals who eat both plant and animal products.

Q3. Give a technical term for the following : (1x5=5)

- (a) The process of separating cotton fibre from its seeds.
- (b) Part of a plant which is associated with reproduction.
- (c) Placing of similar things together.
- (d) The process in which a single yarn is used to make a fabric.
- (e) Animals that eat flesh of other animals.

### PART-B

Q4. Answer briefly : (2x10=20)

- (a) Name the property common to each of the following groups of materials.
- (i) copper, gold, silver, aluminium
- (ii) petrol, diesel, kerosene, mustard oil
- (b) It is a fibre obtained from the outer covering of a fruit and is used to make floor coverings and doormats.
- (i) Identify the fibre.
- (ii) Name the plant from which this fibre is obtained.

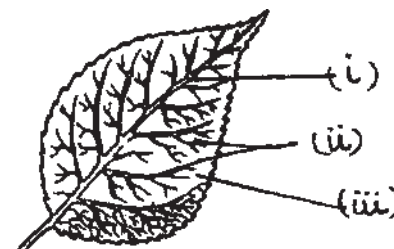
- (iii) Write its use other than the one given above.

(c) Name one important mineral present in the following food items -

- (i) Sea food (ii) Apple
- (iii) Common salt (iv) Milk

(d) An object can show different types of motion at the same time. In a sewing machine used by a tailor, mention the type of motion/motions each of the following have - (i) the wheel (ii) the needle.

(e) Label the parts (i), (ii) and (iii) in the diagram given below :



The leaf shown above has \_\_\_\_\_ venation.

- (f) Food provides vital nutrients for our body. Therefore it is important for us to retain the nutritional value of food. How can we retain the nutritional value of food?
- (g) Differentiate between creepers and climbers giving one example of each.
- (h) 'X' is the part of a plant above the ground. Identify 'X' and explain its any two functions.
- (i) What is rain water harvesting? Explain roof top rain water harvesting
- (j) Though roughage doesn't provide any nutrient yet it is essential for our body. Give reasons.

Q5. Answer the following : (3x5=15)

- (a) Rohit prepared an electric circuit using a cell, a torch bulb and connecting wires

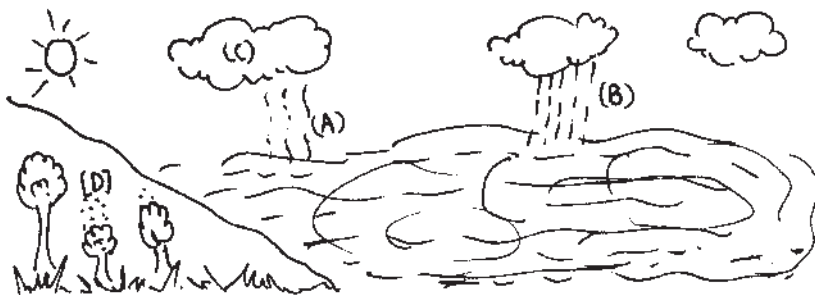
- (i) Define electric circuit.
  - (ii) Differentiate between open circuit and closed circuit.
  - (iii) Name the device which either breaks the circuit or completes it.
- (b) Differentiate between different types of materials on the basis of transparency giving one example of each type.
- (c) Plant 'X' has green and tender stem and is very short. Plant 'Y' has thick stem and is medium sized while Plant 'Z' has hard and woody stem and is very tall. Which type of plants are X, Y and Z? Give one example of each.
- (d) Rahul wants to measure the length of his desk using scale. What precautions should he keep in his mind while measuring the length?
- (e) Cotton and jute are two important plants fibres. Write any three uses each of jute and cotton.

Q6. Draw neat and well-labelled diagrams of: (4+3+3)

- (a) Inside view of a torch.
- (b) Parts of a flower
- (c) Edible parts of a plant having tap root.

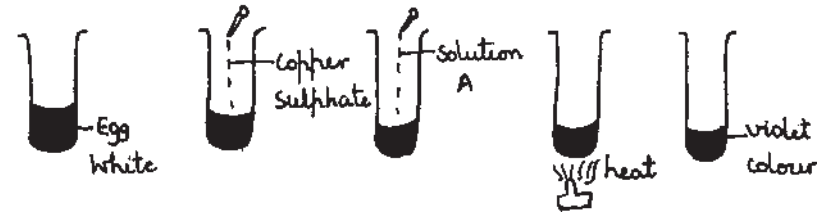
Q7. Answer in detail : (5x2=10)

- (a) Study the diagram given below and answer the questions that follow -



(5)

- (i) Name and define the process represented in the above diagram.
  - (ii) Label the parts A, B, C and D.
  - (iii) How is the process D useful?
- (b) Look at the given diagrams and answer the following questions :



- (i) Which nutrient is being tested in the diagrams shown above?
- (ii) What could solution A be?
- (iii) What is the function of this nutrient in our body?
- (iv) Name four food items rich in this nutrient.

(6)