



# **BRAIN INTERNATIONAL SCHOOL**

**SESSION 2024-25**

**CLASS: VII**

**TERM 1 REVISION SHEET**

**SUBJECT: SCIENCE**

## **Chapter1: Nutrition in plants**

### **1. Multiple choice questions**

Which of the following statements is/are correct?

- (i) All green plants can prepare their own food.
- (ii) Most animals are autotrophs.
- (iii) Carbon dioxide is not required for photosynthesis.
- (iv) Oxygen is liberated during photosynthesis.

Choose the correct answer from the options below

- (a) (i) and (iv)
- (b) (ii) only
- (c) (ii) and (iii)
- (d) (i) and (ii)

### **2 Assertion reason questions**

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

**Assertion** : Plants make their food themselves and are called autotrophs.

**Reason** : Human beings and other animals depend on plants for their food

### **3 Case study based/passage-based questions**

Carnivorous plant is especially adapted for capturing and digesting insects and other animals by means of ingenious pitfalls and traps. There are more than 600 known species of carnivorous plants. The apparent trapping mechanism, which is always a modified leaf is a distinctive feature to these plants. The pitcher plant is an example of a carnivorous plant. The leaf of the Pitcher plant is modified into pitcher-like structure to trap the insects. The apex of the leaf acts like a lid which can open and close the mouth of the pitcher.

- i. Enlist the differences between pitcher plant and mushroom?
- ii. How does a pitcher plant catch insects?
- iii. Explain symbiotic relationship with the help of lichens?

## 4 Answer the following questions

1. Some plants have deep red, violet or brown colored leaves. Can these leaves perform the photosynthesis process?
2. Water and minerals are absorbed by the roots and then transported to leaves. How?
3. Nitrogen is an essential nutrient for plants growth. But farmers who cultivate pulses as crops like green gram, bengal gram, black gram, etc., do not apply nitrogenous fertilizers during t cultivation. Why?
4. Why is Cuscuta, categorised as a parasite?

## Chapter2: Nutrition in animals

### 1. Multiple choice questions

Which of the following pair of teeth differ in structure but are similar in function?

- (a) Canines and incisors    (b) Molars and premolars    (c) Incisors and molars    (d) Premolars and canines

### 2 Assertion reason questions

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

**Assertion-** there are four types of teeth present in mouth.

**Reason-** the incisor, canine, premolar, molar are the four types of teeth present in mouth.

### 3 Case study/ passage based questions

The stomach is a thick-walled bag. Its shape is like a flattened J and it is the widest part of the alimentary canal. It receives food from the food pipe at one end and opens into the small intestine at the other. The inner lining of the stomach secretes mucous, hydrochloric acid and digestive juices. The mucous protects the lining of the stomach. The acid kills many bacteria that enter along with the food and makes the medium in the stomach acidic and helps the digestive juices to act. The digestive juices breakdown the proteins into simpler substances.

- i. What is the function of acid in the stomach?
- ii. Name the largest gland of body and write its function?
- iii. How is large intestine different from small intestine?

## 4 Answer the following questions

1. Write the difference between milk teeth and permanent teeth.
2. Small intestine in herbivores is longer than in carnivores. Do you agree? Support your Answer
3. Ruminants such as cows and buffaloes swallow their food hurriedly and then sit restfully and chew their food. Give reason
4. Cellulose rich food substances are good source of roughage in human beings. Justify

## Chapter3: Heat

### 1 Multiple choice question

Rahul has three thermometers as shown in figure. He wants to measure the temperature of his body and that of boiling water. Which thermometer(s) should he choose?



(i)



(ii)



(iii)

- (a) Thermometers (i) and (iii) for measuring body temperature and (ii) for measuring the temperature of boiling water
- (b) Thermometer (i) for measuring temperature of both
- (c) Thermometer (ii) for measuring temperature of both
- (d) Thermometer (iii) for measuring temperature of both

### 2. Assertion Reason question

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

**Assertion:** We cannot receive heat from the Sun through convection.

**Reason:** Sun is too far away from Earth. The heat from the Sun dissipates mid-way.

### 3. Case study / passage-based questions

Vinay with a group of adventurous friends, went to river rafting in Manali in winters. There the tented accommodations on the river bank. He noticed that at every camping site the basic element of all the tents was a long, narrow strip of heavy black cotton. Every tent had a room heater, the travelers were advised to place room heaters at the ground level for effective heating. At night it was chilling so, bonfire was arranged by the camp owner for the travelers to provide warmth in open cool spaces. When Vinay was sitting beside a campfire, his body facing the fire got hot while the side facing away from the fire stays cold.

- i. Why all tents are black in color at the campsite?
- ii. Define convection and conduction with the help of examples
- iii. Enlist precautions while taking reading from laboratory and clinical thermometer.

### 4 Answer the following questions

- 1. Instead of water explain the reason, why do the mercury is used in the thermometer?
- 2. Explain land breeze and sea breeze with the help of diagram
- 3. Why do we wear cotton clothes during summer?
- 4. Differentiate between laboratory and clinical thermometer?

## Chapter 4: Acids bases and salts

### 1. Multiple choice questions

When the soil is too basic, plants do not grow well in it. To improve its quality, what must be added to the soil?

- (a) Organic matter (b) Quicklime (c) Slaked lime (d) Calamine solution

### 2. Assertion Reason question

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

**Assertion:** Acids are sour in taste.

**Reason:** Bases are soapy to touch and bitter in taste.

### 3. Case study / passage-based question

In a chemistry lab experiment was going on where students were identifying the nature of chemicals by performing a test with indicators. For the purpose of test, they have labelled the solution as A, B, C & D and then they have tested each solution with litmus and phenolphthalein and litmus paper the conclusion of the experiment was:

With solution A phenolphthalein was colorless.

With solution B it turns magenta.

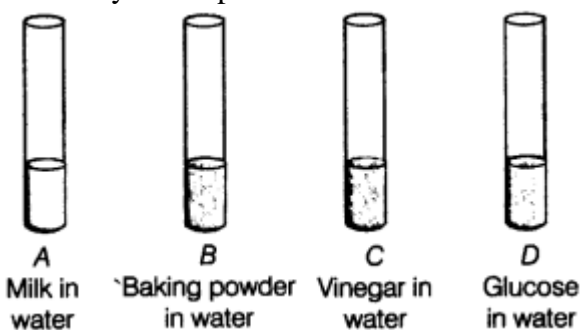
C & D remains unaffected with both litmus and phenolphthalein

- i. What are indicators?
- ii. Differentiate between natural and artificial indicators?
- iii. What is the nature of substance A?
- iv. Write an activity to demonstrate that turmeric can also be used as an indicator?

### 4 Answer the following questions

1. Look at the figure which shows solutions taken in test tubes A, B, C and D. What color is expected, when a piece of red litmus paper is dropped in each test tube? Nature of the solutions is given in the

table for your help.



Test tube	Nature of solution	Change in colour of red litmus
A	Neutral	
B	Basic	
C	Acidic	
D	Neutral	

- While playing in a park, a child was stung by a wasp. Some elders suggested applying paste of baking soda and others lemon juice as remedy. Which remedy do you think is appropriate and why?
- Explain two neutralization reactions related to daily life situations.
- Name three types of salts. Give one example of each type of salt.

## Chapter 5: Physical and Chemical changes

### 1. Multiple Choice Question:

Most physical changes are

- (a) irreversible
- (b) accompanied with evolution of gas
- (c) reversible
- (d) accompanied with change of smell

### 2. Assertion –Reason questions:

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

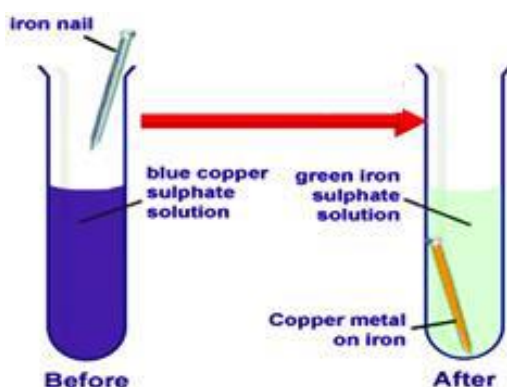
(iii) A is true but R is false.

(iv) A is false but R is true.

**Assertion:** Digestion of food is a chemical change.

**Reason:** In our stomach, food undergoes chemical reactions and changes into new substances.

### 3. Observe the given picture and answer the questions.



- What change will you observe in the colour of the solution after dropping an iron nail into it?
- Why do we observe the colour change in solution?
- Write the word equation involved in the above reaction.

### 4. Answer the following questions:

- Is cloud formation a chemical or physical change? Explain.
- A sheet of paper was torn into pieces and then burned. What changes does this sheet of paper undergoes? Explain.
- Same iron wires are kept in following different places- a) On the moon. b) In Delhi.
  - On the moon.
  - In Delhi.
  - Near beach in Mumbai.
- Give two examples for each of the following cases:
  - Physical changes are reversible.
  - Physical changes are not reversible.
  - Chemical changes.

## Chapter 6: Respiration in Organisms

### 1. Multiple Choice Question:

Yeast is used in the wine and beer industries because it respire

- |                                      |   |
|--------------------------------------|---|
| (a) aerobically producing oxygen.    | (b) aerobically producing alcohol.            |
| (c) anaerobically producing alcohol. | (d) anaerobically producing CO <sub>2</sub> . |

### 2. Assertion –Reason questions:

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

**Assertion:** Breathing in and out is a simple physical process.

**Reason:** Breathing occurs only in animals and not in plants.

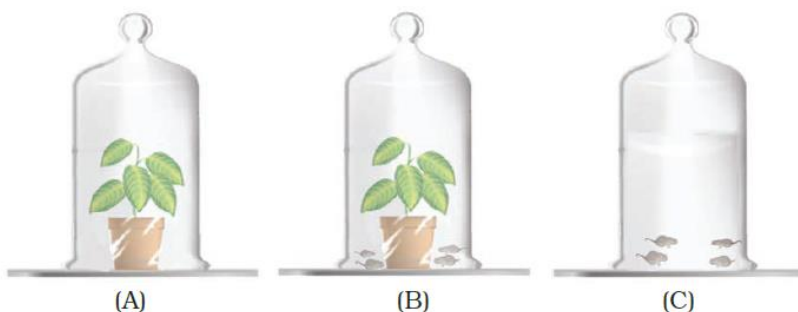
### 3. Observe the given picture and answer the questions.

When we breathe, the blood takes the oxygen to all cells of the body. During respiration, the sugar molecules in food are oxidized to form carbon-dioxide and water, and energy is given out. Palak wants to be a great cyclist. She cycles daily for about 2 hours followed by some exercises. Today, she thought she will cycle for longer and managed it for 4 hours. Now she is feeling cramped up and her breathing is disturbed. Her mother took her to hospital where the doctor examined and told her not to push herself more than necessary. Palak understood and promised herself to move slow and steadily.

- i Why do cramps occur in legs?
- ii Is breathing rate also affected after doing long hour of exercise? Why?
- iii What happens to the body when there is insufficient supply of oxygen?

### 4. Answer the following questions:

1. Do plants also respire? Explain in brief.
2. Observe Figure carefully and answer the following questions.



- (a) In which jar, will the amount of CO<sub>2</sub> be the highest and why?
- (b) In which jar, will the amount of CO<sub>2</sub> be the lowest and why?
3. Differentiate between
  - (a) Aerobic and Anaerobic respiration
  - (b) Breathing and Respiration
4. Draw neat and labeled diagram of the human respiratory system.

## Chapter 9: Motion and Time

### 1. Multiple Choice Question:

A bus travels 54 km in 90 minutes. The speed of the bus is

- (a) 0.6 m/s.                      (b) 10 m/s                      (c) 5.4 m/s.                      (d) 3.6 m/s

### 2. Assertion –Reason questions:

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

**Assertion:** The distance moved by an object in unit time is called its speed.

**Reason:** Faster vehicles have higher speeds.

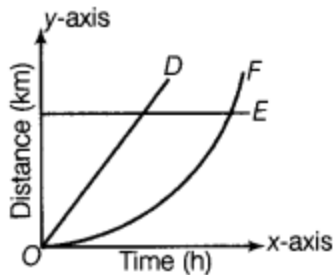
### 3. Observe the given picture and answer the questions.

Last Sunday, Priyanka decided to go outside with her family for the dinner in some particular restaurant. Then, she thought to go through her own car. So, while moving she increased the speed of the car from 36 km/h to 54 km/h. All of sudden, a rickshaw came in front of her car but due to applying of brakes at the right time, both of them got safe from meeting with an accident.

- Calculate the increase in the speed of the car in the terms of m/s.
- Name a device which is used in vehicles to measure the speed covered by the vehicle.
- Differentiate between uniform motion and non- uniform motion.

### 4. Answer the following questions:

- The following distance-time graph of three objects (D, E and F) is given (see figure given alongside). What can you say about the motion of the objects?



- When is a pendulum said to have completed one oscillation, explain with a suitable diagram?
- Define speed. What is the basic unit of time and speed?
- Draw a distance-time graph from the given data showing the distance covered by a racing car. Does the car have uniform motion?

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