

INTERNATIONAL INDIAN SCHOOL,

MIDDLE SECTION(BMS/GMS)

MID TERM EXAM WORKSHEET 2023-24

CLASS: VII

SUBJECT: GENERAL SCIENCE

L-1: NUTRITION IN PLANTS

I. Fill in the blanks:

- a) _____ and _____ are the end products of photosynthesis.
- b) Tiny pores seen on the surface of leaves are called as _____.
- c) Carbohydrates are made of _____, _____ and _____.
- d) _____ derive their food from the dead and decaying matter.
- e) Two examples for useful fungi are _____ and _____.
- f) Pitcher like structure is the modified part of the _____.
- g) Insectivorous plants feed on insects for fulfilling the requirement of _____.

II. Name the following:

1. Green coloured pigment in plants.
2. A bacterium that converts atmospheric Nitrogen into a soluble form.
3. Jelly like substance present in a cell.
4. Slimy, green patches formed in ponds and stagnant water bodies.
5. Limiting layer of a cell.
6. Mode of nutrition in mushrooms.
7. Stored form of carbohydrates.
8. The gas released during photosynthesis.
9. Nitrogenous substances which contain Nitrogen.
10. Two examples for animal parasite which suck human blood.

III. Answer the following:

1. Explain photosynthesis with equation and a neat, labelled diagram.
2. Explain the structure of a cell, with a neat, labelled diagram
3. What is meant by parasitic mode of nutrition? Distinguish between parasite and host.
4. What is symbiotic relationship?
5. What is the role of Rhizobium bacteria in leguminous plants?
6. What do you mean by saprotrophic nutrition?

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LESSON-2: NUTRITION IN ANIMALS

I. Choose the correct option:

- Which of the following is not a ruminant?
a) Giraffe b) Goat c) Cow d) Cat
- The cream-coloured gland present below the stomach.
a) Liver b) Pancreas c) Salivary gland d) Thyroid gland
- Bile helps to digest.
a) Proteins b) Carbohydrates c) Fats d) Sugars
- At the end of digestion Carbohydrates are converted to:
a) Fatty Acids b) Simple sugars c) Glycerol d) Amino Acids
- The acid produced by the stomach which kills the germs that enter along with food
a) Sulphuric acid b) HNO₃ c) HCl d) Acetic acid

II. Name the following:

- The secretion of Liver.
- The teeth used for chewing and grinding food.
- Doctor who studied the functioning of the stomach.
- The false feet of amoeba.
- The enzyme present in saliva.
- Longest part of the digestive system
- The partially digested food that ruminants chew again.
- Largest gland in human body.

III. Fill in the blanks:

- ORS is given to those who suffer from_____.
- Caecum is a part of the alimentary canal of_____.
- Bile is stored in_____.
- The stomach secretes_____,_____and_____which act on food.
- Amoeba digests its food in_____.
- The_____absorbs water and salts from the undigested waste.

IV. Answer the following:

- What are villi?
- List the main steps of human nutrition.
- Explain the role of mucous secreted by stomach.
- What is egestion?
- How can we prevent tooth decay?
- What is diarrhoea?
- Name the main parts of alimentary canal.
- What are milk teeth?

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L-4: HEAT

I. Fill in the blanks:

- a) The process by which heat is transferred in solids is known as _____.
- b) In India, temperature is measured in degree _____.
- c) Land and sea breeze are caused because land _____ and _____ faster than the sea.
- d) In liquids and gases, heat is transferred by the process of _____.
- e) The normal temperature of human body is _____.
- f) The range of a laboratory thermometer is generally from _____ to _____.
- g) The transfer of heat by _____ does not require any medium.
- h) _____ prevents mercury level from falling on its own, in the _____ thermometer.
- i) Dark surfaces _____ heat while lighter surfaces _____ heat that falls on the surface.

II. Give reason:

1. Wearing more layers of clothing keeps us warmer during winters than one thick piece of clothing
2. Hollow bricks are used in constructing houses.
3. Stainless steel pans are provided with copper bottoms
4. In places with hot climate, it is advised that outer walls of houses be painted white

III. Answer the following:

1. What are the various modes of transfer of heat?
2. Define sea breeze.
3. Differentiate conductor and insulator.
4. What are the precautions needed while reading a clinical thermometer?

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L-10: RESPIRATION IN ORGANISMS

I. FILL IN THE BLANKS:

- a) The accumulation of _____ causes muscle cramps.
- b) The percentage of oxygen and carbon dioxide in inhaled air is _____% _____% respectively.
- c) In cockroaches air enters the body through _____.
- d) _____ is a muscular sheet that forms the floor of the chest cavity.
- e) The normal range of breathing rate per minute in an average adult person at rest is _____.
- f) The respiratory organ of fish is _____.
- g) The taking in of air rich in oxygen into the body is called _____.
- h) The roots of a plant take up oxygen from the _____ trapped between the _____ particles.

II. CHOOSE THE CORRECT OPTION.

1) Sometimes when we do heavy exercise, anaerobic respiration takes place in our muscle cells. What is produced during this process?

- | | |
|-------------------------------------|---------------------------------|
| (a) alcohol and lactic acid | (b) alcohol and CO ₂ |
| (c) lactic acid and CO ₂ | (d) lactic acid only |

2) Yeast is used in wine and beer industries because it respire.

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

3) Breathing is a process that.

- (a) provides O₂ to the body.
- (b) breaks down food to release energy.
- (c) helps the body to get rid of CO₂.
- (d) produces water in the cells.

Which of the following gives the correct combination of functions of breathing?

- | | |
|-----------------|-----------------|
| (1) (a) and (b) | (2) (b) and (c) |
| (3) (a) and (c) | (4) (b) and (d) |

4. Fish breathe with the help of gills which are richly supplied with blood vessels. The gills help the fish to

- (a) take in oxygen from air.
- (b) take in oxygen dissolved in water.
- (c) absorb nutrients present in water.
- (d) release waste substances in water.

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III. GIVE REASONS:

- a) Whenever we feel drowsy or sleepy, we start yawning.
- b) Yeast is used to make wine and beer.
- c) We often sneeze when we inhale a lot of dust-laden air.
- d) An athlete breathes faster and deeper than usual after finishing the race.

L- 14 ELECTRIC CURRENT AND ITS EFFECTS

I. FILL IN THE BLANKS

- a) The path along which electric current flows is called an _____
- b) Current does not flow in _____ electric circuit.
- c) Thin wire in an electric bulb which glows when electric current passes through is known as ---.
- d) A fuse wire has a _____ melting point.
- e) A combination of two or more cells is called a _____.
- f) In the symbol of an electric cell, the longer line represents the _____ terminal.
- g) The full form of MCB is _____.
- h) The full form of CFL is _____.

II. CHOOSE THE CORRECT ANSWER

- 1. The safety device used for electrical appliances is
 - (a) fuse
 - (b) resistance
 - (c) connecting wire
 - (d) none of these
- 2. Which one of the following is based on the heating effect of current?
 - (a) Geyser
 - (b) Hair dryer
 - (c) Immersion rod
 - (d) All of these
- 3. The coil of wire contained in an electric heater is known as
 - (e) component
 - (f) element
 - (g) circuit
 - (h) spring
- 4. An electric lamp glows due to
 - a. Chemical effect
 - b. Magnetic effect
 - c. Heating effect
 - d. None

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III. MATCH THE FOLLOWING:

Column A	Column B
(i) Switch	(a) Coil of wire which heats up when electricity current is supplied
(ii) Battery	(b) Blows off, if the current exceeds safe limit
(iii) Element	(c) Consumes less energy than a bulb
(iv) Filament	(d) Mark that ensures that the electric appliance is safe to handle
(v) Fuse	(e) Supplies current to the circuit
(vi) MCBs	(f) Turns the circuit ON and OFF
(vii) CFL	(g) Turn OFF if current exceeds safe limit
(viii) ISI	(h) Wire in the bulb which glows

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SUBJECT: GENERAL SCIENCE

Assertion & Reasoning

Lesson 1: Nutrition in Plants

1. Assertion (A): Pitcher plants can trap insects and digest them.

Reason (R): Pitcher plants do not get the required Nitrogen from the soil.

- a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

2. Assertion (A): Rhizobium bacteria has parasitic mode of nutrition.

Reason (R): Rhizobium lives in the root nodules of leguminous plants.

- a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

3. Assertion (A): Bodies of living organisms are made by tiny units called cells.

Reason (R): All cells are enclosed by a cell wall.

- a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

4. Assertion (A): Fungus appear suddenly during rainy season.

Reason (R): Fungus has saprotrophic mode of nutrition.

- a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

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Lesson 2 -Nutrition in Animals

1.) **Assertion-** The digestive tract and the associated glands together constitute the digestive system.

Reason- Digestive juices convert complex substances of food into simple ones.

- (a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- (c) Assertion (A) is true, but Reason (R) is false.
- (d) Assertion (A) is false, but Reason (R) is true.

2) **Assertion-** The inner lining of the stomach secretes mucus, HCl and digestive juices.

Reason- The stomach is thick-walled bag having S shape.

- a) Both Assertion (A) and Reason (R) are true, and Reason(R) is the correct explanation of the Assertion
- b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- c) Assertion (A) is true, but Reason (R) is false.
- d) Assertion (A) is false, but Reason (R) is true.

L-4 HEAT

1. **Assertion(A)-** A laboratory thermometer has a scale in the range of – 10 to 110 degrees Celsius.

Reason(R) - The normal human body temperature is 37 degrees.

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true.

2. **Assertion (A) –** When metallic objects are touched in winter, they give a colder sensation as compared to wooden objects.

Reason(R) – Metals conduct heat faster than wood.

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true.

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Lesson 1: Nutrition in Plants

Food is essential for all living organisms. Plants are the only organisms that can prepare food for themselves by using some raw materials. It occurs in leaves. All the raw materials must reach there. It is a unique process on the earth. Solar energy is captured and stored in the plants during this process. The survival of almost all living organisms directly or indirectly depends upon the food made by the plants, in the absence of which, life would be impossible on the earth. In desert plants it is done by their green stems. Some plants with red, violet, or brown leaves also carry out this process. Based on the above, answer the following

- (1) Name the process by which plants prepare their food and represent it in the form of an Equation.
- (2) How solar energy is captured during this process?
- (3) In desert plants food making process takes place in green stems. Why?
- (4) Plants with coloured leaves also prepare their food. How?

Lesson 2 -Nutrition in Animals

Normally bacteria are present in our mouth, but they are not harmful to us. However, if we do not clean our teeth and mouth after eating, many harmful bacteria also begin to live and grow in it. These bacteria break down the sugars present from the leftover food and release acids. The acids gradually damage the teeth. This is called tooth decay. If it is not treated in time, it causes severe toothache and in extreme cases results in tooth loss. Chocolates, sweets, soft drinks and other sugar products are the major culprits of tooth decay.

Therefore, one should clean the teeth with a brush or *datun* and dental floss (a special strong thread which is moved between two teeth to take out trapped food particles) at least twice a day and rinse the mouth after every meal. Also, one should not put dirty fingers or any unwashed object in the mouth.

Q 1) Saliva in mouth converts...

- (a) Proteins into amino acids.
- (b) Fats into fatty acids and glycerol.
- (c) Starch into simple sugars.
- (d) None of the above

Q 2) Which of the following pairs of teeth differ in structure but are similar in function.

- (a) Molars and premolars.
- (b) canines and incisors.
- (c) all the above.
- (d) None of the above.

Q 3) Which of the following are called cutting teeth?

- (a) Incisors.
- (b) Canines.
- (c) Molars.
- (d) Premolars.

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Q 4) The gradual damage of teeth due to acid is known as_____.

Q 5) The first set of teeth in humans are called_____.

L-4, HEAT

Heat is a form of energy. A reliable measure of the hotness of an object is its temperature. A thermometer is used to measure the temperature. Heat flows when there is a temperature difference between two bodies. There are three ways in which heat can flow from one object to another. Sea breezes and land breezes occur due to the convection of heat. Some materials do not allow heat to pass through them. Woolen clothes keep us warm in winter.

1. Stainless steel pans are usually provided with copper bottoms, why?
2. Define conduction of heat.
3. Sea breeze occurs during_____and land breeze occurs during_____
4. What is the range of clinical thermometer?
5. In places of hot climate, it is advised that the outer walls of houses be painted white, explain.

L-10, Respiration in Organisms

Animals such as elephants, lions, cows, goats, frogs, lizards, snakes, birds, have lungs in their chest cavities like human beings. A cockroach has small openings on the sides of its body. Other insects also have similar openings. These openings are called spiracles. Insects have a network of air tubes called tracheae for gas exchange. Oxygen rich air rushes through spiracles into the tracheal tubes, diffuses into the body tissue, and reaches every cell of the body.

Similarly, carbon dioxide from the cells goes into the tracheal tubes and moves out through spiracles. These air tubes or tracheae are found only in insects and not in any other group of animals. The skin of an earthworm feels moist and slimy on touching. Gases can easily pass through them. Though frogs have a pair of lungs like human beings, they can also breathe through their skin, which is moist and slippery.

1. What are the two processes in breathing?
2. How do plants breathe?
3. Explain the breathing process in fish?
4. How does respiration differ from breathing?

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L-14, Electric Current and Its Effects

Read the following passage carefully and answer the questions given below.

The amount of heat produced in a wire depends on its material, length, and thickness. Thus, for different requirements, the wires of different materials and different lengths and thicknesses are used. The wires used for making electric circuits do not normally become hot. On the other hand, the elements of some electric appliances become so hot that they are easily visible. The filament of an electric bulb gets heated to such a high temperature that it starts glowing. If a large current passes through a wire, the wire may become so hot that it may even melt and break.

1. What is meant by heating effect of electric current?
2. What is an electric fuse?
3. Name the material used to make, a) heating element b) filament of a bulb
4. What are the two devices which use the heating effect of electric current?
