

PON VIDYASHRAM SCHOOL- VALASARAVAKKAM

CLASS-X BIOLOGY

PERIODIC TEST : 1

(LIFE PROCESSES) - WORK SHEET

I. VERY SHORT ANSWER TYPE QUESTIONS

1. Name the product and by product of photosynthesis.
2. In which biochemical form the photosynthate moves in phloem tissue?
3. What are the raw materials of photosynthesis?
4. What is the similarity between chlorophyll and hemoglobin?
5. Name the products of photolysis of water.
6. What are the end products of light dependant reaction?
7. Which cell organelle is the site of photosynthesis?
8. What is the difference between digestion of heterotrophs and saprotrophs?
9. Give example of two plants and two animal parasites.
10. Name the enzyme present in saliva, what is its role in digestion?
11. Which chemical is used to test for starch? Which colour shows the presence of starch?
12. Give the term- rhythmic contraction of alimentary canal muscle to propel food.
13. Name the three secretions of gastric glands.
14. What is the function of mucus in gastric gland?
15. Name the sphincter which regulates the exit of food from the stomach.
16. Give the functions of hydrochloric acid for the body.
17. What is the role of pepsin in stomach?
18. Why pancreas is called mixed gland?
19. Give two functions of bile juice, from which organ it is released?
20. Name the largest gland of our body.
21. Name any three important enzymes of pancreas and the food component on which they act.
22. Where from intestinal juice come to the small intestine?

23. What is the function of intestinal juice?

24. What are the simplest digestive products of carbohydrate, fats and protein?

25. Name the finger-like projections of small intestine and what is the necessity of such type of projections in digestive system?

## II. SHORT ANSWER TYPE QUESTIONS

1. Why are intestinal villi highly vascular?

2. What is the function of anal sphincter?

3. Name the site of anaerobic and aerobic respiration in a cell.

4. Why do we get muscle cramp after vigorous exercise?

5. Distinguish between lactic acid and alcoholic fermentation?

6. Name the energy currency molecule of cell?

7. The breathing rate of aquatic animals is high, why?

8. What is the function of mucus and fine hair in nostrils?

9. Give the function of network of capillaries on alveoli.

10. Name the main carrier of oxygen and carbon dioxide in man.

11. Why does haemoglobin molecule act as efficient carrier of oxygen than diffusion process?

12. What is the normal blood pressure of man? Why capillaries are thin walled?

13. Which cell of blood help in wound healing? What is the other name of lymph?

Give two functions of lymph.

14. What is the direction of flow of water in xylem and food in phloem? Why do plants need less energy than animals?

15. Which process acts as suction to pull water from xylem cells of roots.

16. Mention two functions of transpiration.

17. What are the two substances transported through phloem tissue?

Name the food component whose digestion produces nitrogenous waste?

18. Which is the functional unit of kidney?

19. What is the cup-shaped structure of nephron called?

20. Which materials are selectively reabsorbed by nephron tubule?

### III. ANSWER THE FOLLOWING

Q1 How exchange of gases take place in plants?

Q2 Differentiate between photosynthesis and respiration.

Q3 Explain the mechanism of breathing in human beings.

Q4 How does water rise in tall trees?

Q5 Leaves of a potted plant are coated with Vaseline to block the stomata. Will this plant remain healthy for long? State the 3 reasons for your answer.

Q6 How is prepared food transported to different parts of the plant?

Q7 What is blood? What are the components of blood? Also write the function of each component.

Q8 What are the advantages of having very thin and highly branched capillaries for blood flow?

Q9 What is the difference between the blood flowing in the arteries and that flowing in the veins?

Q10 What is the meaning of the term "Double circulation"?

Q11 What will happen if excess bleeding takes place and what natural device preventing it?

Q12 Correct the false statement

- a) The walls of the atrium are thicker than the ventricles
- b) The oxygen carrying blood goes into the left auricle
- c) Valves open on both the sides.
- d) Xylem transports food material.
- e) The blood circulation in man is of open type in man

Q13 Differentiate between excretion and osmoregulation? Describe how excretion takes place in amoeba.

Q14 What is dialysis? How is it useful?

Q15 What is excretion? How is solid and gaseous waste excreted in humans?

#### IV. Detail

- ① Distinguish between the following
  - a) Aerobic & Anaerobic respiration
  - b) Alveoli & Neuron
  - c) Arteries & veins
- ② Draw neat labelled diagram of the following
  - a) Human heart
  - b) Excretory system
  - c) Structure of Neuron
  - d) Digestive system
  - e) Stomata
  - f) Amoeba - Nutrition
- ③ Explain the Mechanisms of the following
  - a) double circulation
  - b) Respiration
  - c) Excretion.
- 4) Give the flow chart of breakdown of glucose by various pathways.
- ⑤
  - (i) what type of plants are used to carry out experiment to prove that chlorophyll is required for photosynthesis.
  - (ii) why is chlorophyll extracted from leaf before testing it for the presence of starch. ?
  - (iii) why is freshly prepared lime water used in experiments to test evolution of  $\text{CO}_2$ .

⑥ Define the following

- (i) Stomata (ii) Nutrition (iii) Excretion  
(iv) Residual volume (v) transpiration pull  
(vi) Translocation (vii) Aorta (viii) villi (ix) Lymph  
(x) Artificial kidney (xi) Dialysis (xii) Epiglottis.

⑦ Explain digestion in

- a) Mouth (b) Stomach (c) Duodenum.

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Tejo  
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