

Life Processes Practice Paper 1 Answer Key

Time: 1 hr

Marks: 30

Section-A Choose the Correct Option

5 x 1=5

1. c. Glucose
2. a. Tubule
3. b. Fats
4. d. Thin-walled capillaries richly supplied with blood
5. c. A is true, but Reason is false.

Section-B Very Short Answer Questions

3 x 2=6

6. Answer:

- a. All the nerves of the body together make up the peripheral nervous system. It consists of three types of nerves that are spinal nerves, cranial nerves, and visceral nerves.
- b. The autonomic nervous system (ANS) is a self-governing nervous system. Its function is to control and regulate the functions of the internal organs of our body involuntarily.

7. Answer:

The significance of the emulsification of fats is as follows:

Bile contains bile pigments and bile salts. Bile salts help break down the oil droplets into small globules forming a milky emulsion. This process is called emulsification. This process facilitates further digestion of fats. Steapsin is a pancreatic lipase that acts on emulsified fats and converts them to fatty acids and glycerol. This aids in the easy digestion of food.

8. Answer:

The inner lining of the small intestine has numerous microscopic finger-like projections called villi which increase the surface area for absorption. The villi are richly supplied with blood vessels which transport the absorbed food to every cell of the body where it is utilized to obtain energy and repair old tissues.

Section C- Short Answer Questions**2 x 3 = 6****9. Answer: (Any three)**

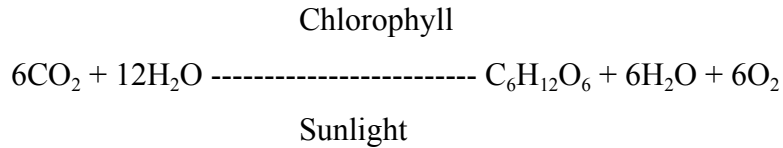
Aerobic respiration	Anaerobic respiration
1. Occurs in the presence of oxygen.	1. Occurs in the absence of oxygen.
2. Involves gaseous exchange between the organism and its environment.	2. Exchange of gases is absent.
3. Takes place in cytoplasm and mitochondria.	3. It occurs only in cytoplasm.
4. It always releases carbon dioxide and water.	4. End products vary. (Ethanol and carbon dioxide / Lactic acid)
5. It yields 38 ATPs.	5. It yields only 2 ATPs

10. Answer:

- a. Oxidation of glucose in the muscles occurs in the absence of oxygen. The end products formed are lactic acid and ATP.
- b. Oxidation of glucose in body cells occurs in the mitochondria in the presence of oxygen. The end products are carbon dioxide, water, and ATP.
- c. Breakdown of glucose anaerobically in yeast produces ethanol, carbon dioxide, and ATP.

Section D- Short Answer Questions**1 x 5 = 5****11. Answer:**

Photosynthesis is the process in which green plants use carbon dioxide and water to prepare food in the presence of sunlight. Oxygen gas is liberated as a by-product of photosynthesis. The prepared food is a carbohydrate that is stored as starch.



Photosynthesis takes place in three steps. They are;

1. The chlorophyll absorbs light energy from the sun.
2. This light energy is converted into chemical energy to split a water molecule into hydrogen and oxygen.
3. Hydrogen from the splitting of water molecules is used to reduce carbon dioxide to form carbohydrates.

SECTION - E Case Study Questions

2 x 4= 8

12. Answer:

- (i) (b) Yeast, mushroom, bread mold
- (ii) (b) *Taenia*
- (iii) (b) Mushroom
- (iv) (c) utilization of energy obtained by plants
- (v) (d) cytotome.

13. Answer:

- (i) (a) exosmosis
- (ii) (b) loose water and become flaccid initially
- (iii) (d) all of these.
- (iv) (b) cell membrane is selectively permeable