LIFE PROCESSES

MCQ-SINGLE RESPONSES

1. In which of the following groups of organisms, food material is broken down outside the body and absorbed?

(a) Mushroom, green plants, Amoeba

(b) Yeast, mushroom, bread mould

(c) Paramecium, Amoeba, Cuscuta

(d) Cuscuta, lice, tapeworm

2. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?

(a) Proteins breaking down into amino acids

(b) Starch breaking down into sugars

(c) Fats breaking down into fatty acids and glycerol

(d) Absorption of vitamins

3. A few drops of iodine solution were added to rice water. The solution turned blue-black in colour. This indicates that rice water contains

(a) complex proteins

(b) simple proteins

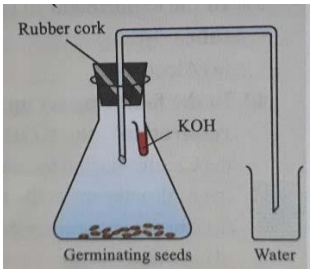
(c) fats

(d) starch

4. The procedure used for cleaning the blood of a person by separating urea from it is called:
(a) osmosis
(b) filtration
(c) dialysis
(d) double circulation

5. How is the circulations of blood in fish different from that in humans?
(a) The heart in fish is bigger in size.
(b) The flow of blood in fish is unidirectional.
(c) The blood goes through heart only once in fishes.
(d) The heart of fish has more chambers compared to that of a human.

6. In the experiment given here water will rise in the tube because


Rubber cork
KOH
Germinating seeds
Water

(a) Oxygen of air in the flask will be taken up by the germinating seeds

(b) Carbon dioxide given out by the germinating seeds will be absorbed by KOH.

(c) Carbon dioxide given out we'll go through the glass tube and push water up into the tube

(d) Moisture in the germinating seeds will reach the water in the beaker through the delivery tube.

The correct reason of water to rise in the tube is

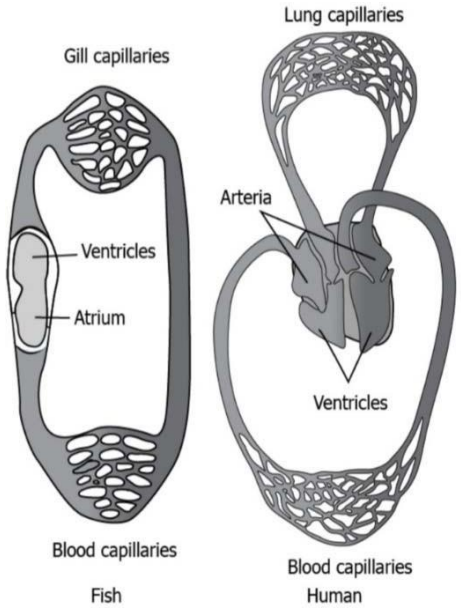
(i) (a)

(ii) (b)

(iii) (c)

(iv) (d)

7. The image shows the circulation of blood in fishes and human



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8. We test for starch and not glucose to prove that photosynthesis has taken place because:

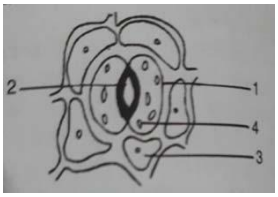
(a) Glucose is not produced during photosynthesis in variegated leaves

(b) Glucose formed during photosynthesis gets stored as sucrose

(c) Glucose formed during photosynthesis gets stored as starch

(d) Glucose is a stable product and cannot be tested

9. Given below is the figure of a stomata select the correct labelling for this diagram



(a) 1 epidermal cells, 2 stoma, 3 guard cell, 4 chloroplast

(b) 1 guard cell, 2stoma, 3 epidermal cells, 4 chloroplast

(c) 1 stoma, 2 epidermal cell, 3chloroplast, 4 guard cell

(d) 1 chloroplast, 2 stoma 3 epidermal cells 4 guard cell

MCQ WITH MULTIPLE RESPONSES

1. Which of the following statement(s) is (are) true about respiration?

(i) During inhalation, ribs move inward and diaphragm is raised

(ii) In the alveoli, exchange of gases takes place i.e., oxygen from alveolar air diffuses into blood and carbon dioxide from the blood into the alveolar air

(iii) Haemoglobin has a greater affinity for carbon dioxide than oxygen

(iv) Alveoli increase surface area for exchange of gases

(a) (i) and (iv)

(b) (ii) and (iii)

(c) (i) and (iii)

(d) (ii) and (iv)

2. Which of the following statement (s) is (are) true about the heart?

(i) The left atrium receives oxygenated blood from different parts of the body while the right atrium receives deoxygenated blood from lungs.

(ii) Left ventricle pumps oxygenated blood to different body parts while right ventricle pumps deoxygenated blood to lungs.

(iii) Left atrium transfers oxygenated blood to the right ventricle which sends it to different body parts.

(iv) The right atrium receives deoxygenated blood from different parts of the body while the left ventricle pumps oxygenated blood to different parts of the body.

(a) (i)

(b) (ii)

(c) (ii) and (iv)

(d) (i) and (iii)

3. The role of nasal cavity in human respiratory system

(i) Filtration of inhaled air.

(ii) Removal of germs and dust.

(iii) Moistening of the inhaled air.

(a)(i) & (ii)

(b)(ii) & (iii)

(c)(i), (ii) & (iii)

(d) None of these

REASON AND ASSERTION

1. **Assertion**: Although bile juice has no digestive enzymes it is still considered to be very important during digestion of food

Reason: Bile provide alkaline medium and emulsifies fat.

(a) Both the **Assertion** and the **Reason** are correct and the Reason is the correct explanation of the Assertion.
(b) The **Assertion** and the **Reason** are correct but the Reason is not the correct explanation of the Assertion.
(c) **Assertion** is true but the **Reason** is false.
(d) **Assertion** is false but the **Reason** is true.

2. **Assertion**:Herbivores have longer small intestine as compared to Carnivores

Reason: Food takes more time to digest in Carnivore

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

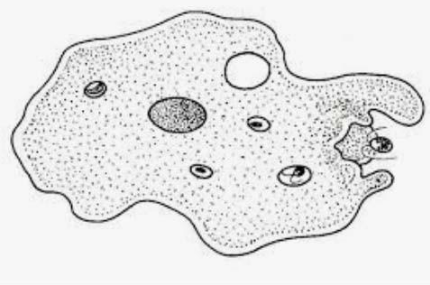
3. **Assertion**: Haemoglobin content is more in the children than the adult.

Reason: Children have higher metabolic rate and growth rate than the adults.

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

CCT-1

Amoeba is an animal having no fixed shape.It ingests food particles by formation of temporary finger-like projections. The food vacoule inside amoeba breaks down the food into small and soluble molecules.

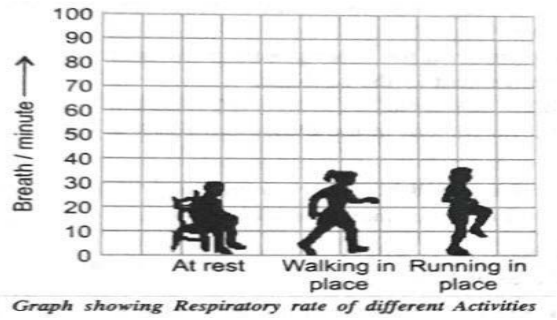


The digested food is thrownout by the amoeba by the rupture of cell membrane and it goes on for the search of next food particle.

Q1.Amoeba belongs to which group of microorganisms?
(1) Fungi
(2) Bacteria
(3) Protozoa(4) Virus
Q2. What are the temporary projections made in amoeba called?
(1) Walking legs
(2) Limbs
(3) Pseudopodia
(4)None of the above
Q3. What type of nutrition is followed by amoeba?
(1) Parasitic
(2) Holozoic
(3) Saphrotrophic
(4) Autotrophic
Q4. The process of throwing out of undigested food in Amoeba is called
(1) Egestion
(2) Digestion
(3) Nutrition
(4) None of the above
Q5. Give an example of organism which follows same mode of nutrition in amoeba.
(1) Vertebrates
(2) Fungi
(3) Tapeworms
(4) Cuscuta plants

CCT-2 ITEM

RESPIRATION



Graph showing Respiratory rate of different Activities

Most living things need oxygen to obtain energy from food. The oxygen reacts with food molecules and that is how energy is obtained which is stored in the form of ATP molecules in the cells. This energy can be used anywhere the bodywants to do so. The process of releasing energy from food is called respiration.

Q1. What is the full form of ATP?
(1) Adenisyne tri-phosphate
(2) Adenosine tri-phosphate
(3) Adenosine tetraphosphate
(4) Adenosine monophosphate
Q2. Respiration is
(1) Catabolic process
(2) Anabolic process
(3) Physical process
(4) Biophysical process
Q3. Respiration is the process in which-
(1) Energy is released and stored in the form of ATP
(2) Energy is stored in the form of ADP
(3) Energy is not released at all
(4) Energy is used up
Q4. The form of energy used in respiration is -
(1) Electrical energy
(2) Chemical energy
(3) Mechanical energy
(4) Radiant energy
Q5. How many types of respiration are there?
(1) 1
(2) 3
(3) 2
(4) None of the above

Answer

1. The answer is (b) Yeast, mushroom, bread mould

Explanation:

Yeast, mushroom and bread mould are saprophytes and Saprophytes break the food material outside their body and absorbed.

2. The answer is (b) Starch breaking down into sugars

Explanation: Salivary Amylase enzyme present in the saliva breaks down Starch into simpler sugar and helps in digesting them. Hence the breakdown of starch will be affected if salivary amylase is lacking in the saliva.

3. The answer is (d) starch

Explanation: Starch is made up of two components Amylose and Amylopectin. When we add iodine to starch-containing water Amylose reacts with iodine to form a blue colour complex. Here solution gives blue-black colour on adding Iodine which confirms the presence of starch in the rice water.

4. (c) Dialysis

Explanation: Dialysis is a procedure to remove waste products and excess fluid from the blood when the kidneys stop working properly.

5. Correct Answer: Option (c)

6. Correct Answer: Option (b)

7. Correct Answer: Option (c)

8. Correct Answer: Option (c)

9. Correct Answer: Option (b)

MULTIPLE RESPONSES

1. The answer is (d) (ii) and (iv)

Explanation: Statement i) is wrong because ribs move outward and the diaphragm is lowered during inhalation. Similarly Option iii) is wrong because Haemoglobin has greater affinity for oxygen than CO_2.

2. The answer is (c) (ii) and (iv)

Explanation: Oxygenated blood circulates through the left part of the heart whereas deoxygenated blood circulates through the right part of the heart. Atrium receives blood and ventricle pumps the blood out of the heart.

3. The answer is (c)(i), (ii) & (iii)

REASON AND ASSERTION

1. (a)

2. (c)

3.(a)

CCT 1

Q1. (1) Protozoa

Q2. (3) Pseudopodia

Q3. (2) Holozoic

Q4. (1) Egestion

Q5. (1) Vertebrates

CCT 2

Solution

Q1. (2) Adenosine tri-phosphate

Q2. (1) Catabolic process

Q3. (1) Energy is released and stored in the form of ATP

Q4. (2) Chemical energy

Q5. (3) 2