Railways (Group-D & ALP) Science Questions with solution

RRB science MCQs Quiz 10

Directions: Kindly Study the following questions carefully and choose the right answer.

1. Human saliva contains an enzyme called *salivary amylase* that breaks down starch to give sugar. It is present in the mouth. There is another area which uses this enzyme. Which of the following is it?

A. Small Intestine B. Large intestines C. Liver D. Pancreas

2. Which of the following is true about the gastric glands present in human stomach?

A. These glands are present in the wall of the stomach.

B. They release hydrochloric acid and a digestive enzyme called pepsin.

C. Both are correct

D. Both are incorrect

3. The longest part of the alimentary canal is the

A. Small Intestine B. Large Intestine C. Oesophagus D. Both A and C

4. The site where complete digestion of carbohydrates, proteins and fats takes place is called

A. Liver B. Stomach C. Large Intestine D. Small Intestine

5. The food which is going to enter small intestine from the stomach is acidic in nature and has to be alkaline for the pancreatic enzymes to act. Which is the organ that accomplishes?

A. Liver B. Oesophagus C. Large Intestine D. Pancreas

Which of the following is/are true about 'Villi'?

I. They are present in the walls of the small intestine.

II. They contain numerous blood vessels which take the absorbed food to every cell of the body.

III. They increase the surface area for absorption.

A. Only I B. Only III C. Only I and II D. All of the above

7. Which of the following is/are digestive enzymes?

A. Trypsin B. Lipase C. Pepsin D. All of the above

8. Respiration in the absence of air is called

A. Aerobic respiration B. Anaerobic respiration

C. Muscular respiration D. Molecular respiration

9. Within the lungs, the air- passage divides into smaller and smaller tubes which finally terminate in balloon-like structures. These are called _____.

A. Trachea B. Bronchi C. Alveoli D. Larynx

10. Haemoglobin is used to transport _____ in humans.

A. Oxygen B. Carbon Dioxide C. Both are correct D. Both are incorrect

Correct Answers:

1	2	3	4	5	6	7	8	9	10
D	C	A	D	A	D	D	B	C	A

Explanations:

1.

Amylase is found in two main areas – saliva in the mouth and pancreatic juice in the pancreas. Pancreatic juice is secreted into the small intestine where it helps continue digestion. In both areas amylase helps to break down starch into simpler sugars.

Hence, option D is correct.

2.

The muscular walls of the stomach help in mixing the food thoroughly with digestive juices. These digestion functions are taken care of by the gastric glands present in the wall of the stomach. These release hydrochloric acid, a protein digesting enzyme called pepsin, and mucus. The hydrochloric acid creates an acidic medium which facilitates the action of the enzyme pepsin. The mucus protects the inner lining of the stomach from the action of the acid under normal conditions.

Hence, option C is correct.

3.

The food enters the small intestine from the stomach. This is the longest part of the alimentary canal and is fit into a compact space because of ***extensive coiling***. The length of the small intestine differs in various animals depending on the food they eat. Herbivores eating grass need a longer small intestine to allow the cellulose to be digested. Meat is easier to digest, hence carnivores like tigers have a shorter small intestine.

Hence, option A is correct.

4.

The small intestine is the site of the complete digestion of carbohydrates, proteins and fats. It receives the secretions of the liver and pancreas for this purpose.

Hence, option D is correct.

5.

Liver releases **Bile juice** which converts the acidic enzymes into alkaline.

Hence, option A is correct.

6.

The ***inner lining of the small intestine*** has numerous finger-like projections called Villi. It increases the surface area for absorption in the small intestines. The villi are richly supplied with blood vessels which take the absorbed food to each and every cell of the body, where it is utilised for obtaining energy, building up new tissues and the repair of old tissues. The unabsorbed food is sent into the large intestine where more villi absorb water from this material.

Hence, option D is correct.

7.

All of the above are digestive enzymes and help in the breaking down of complex food particles into simple ones. These simple particles can be easily absorbed by the blood and thus transported to all the cells of the body.

Hence, option D is correct.

8.

Respiration in the absence of air is called Anaerobic respiration while respiration in the presenceof air (oxygen) is called aerobic respiration.

Hence, option B is correct.

9.

The alveoli provide a surface where the exchange of gases can take place. The walls of the alveoli contain an extensive network of blood-vessels. When we breathe in, we lift our ribs and flatten our diaphragm, and the chest cavity becomes larger as a result. Because of this, air is sucked into the lungs and fills the expanded alveoli. The blood brings carbon dioxide from the rest of the body for release into the alveoli, and the oxygen in the alveolar air is taken up by blood in the alveolar blood vessels to be transported to all the cells in the body.

Hence, option C is correct.

10.

In human beings, the respiratory pigment is haemoglobin which has a very high affinity for oxygen. This pigment is present in the red blood corpuscles. Carbon dioxide is more soluble in water than oxygen is and hence is mostly transported in the dissolved form in our blood.

Hence, option A is correct.