

Class: 7
Subject: Biology
Topic: Respiration In Organisms
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1 In cockroaches, air enters the body through

- a) Lungs
- b) Gills
- c) Spiracles
- d) Skin

Sol. c) Spiracles - A cockroach has small openings on the sides of its body. Other insects also have similar openings. These openings are called spiracles

2 During heavy exercise, we get cramps in the legs due to the accumulation of

- a) Carbon dioxide
- b) Lactic acid
- c) Alcohol
- d) Water

Sol. B) Lactic acid –The cramps occur when muscle cells respire anaerobically. The partial breakdown of glucose produces lactic acid.

3 Yeasts respire anaerobically and during this process yield _____.

- a) Alcohol
- b) Salty water
- c) Proteins
- d) Carbohydrates

Sol. a) Yeasts are single-celled organisms. They respire anaerobically and during this process yield alcohol. They are, therefore, used to make wine and beer.

4 The taking in of air rich in oxygen into the body is called

- a) Exhalation
- b) Inhalation
- c) Respiration
- d) Photosynthesis

Sol. a) Exhalation is giving out of air rich in carbon dioxide. Respiration is breakdown of food material to release energy and photosynthesis is the process of manufacturing food by the plants by using raw materials.

5 The number of times a person breathes in a minute is termed as the

- a) Pulse rate
- b) Breathing rate
- c) Transpiration
- d) None of the above

Sol. b) Pulse rate is the number of heart beats per minute. Transpiration is the loss of water from leaves in the form of water vapor.

6 An adult human being at rest breathes in and out _____ times in a minute.

- a) 20-21
- b) 12-13
- c) 15-18
- d) 30-31

Sol. c) 15-18

7 During heavy exercise, the breathing rate can increase upto ____ times per minute.

- a) 20
- b) 23
- c) 21
- d) 25

Sol. d) 25

8 A large, muscular sheet called _____ forms the floor of the chest cavity.

- a) Diaphragm
- b) Lungs
- c) Windpipe
- d) None of the above

Sol. a) Lungs are the organs in which air is purified. Windpipe is a tube like portion of the respiratory (breathing) tract that connects the larynx (the voice box) with the lungs.

9 When we inhale air, it passes through our nostrils into the nasal cavity.

- a) Lungs
- b) Windpipe
- c) Nasal Cavity
- d) Diaphragm

Sol. c) Nasal cavity

10 Breathing involves the movement of the

- a) Nose and rib cage
- b) Lungs and rib cage
- c) Diaphragm and lungs
- d) Diaphragm and rib cage

Sol. d) During inhalation, ribs move up and outwards and diaphragm moves down. This movement increases space in our chest cavity and air rushes into the lungs. During exhalation, ribs move down and inwards, while diaphragm moves up to its former position.

11 Smoking is linked to

- a) Cancer
- b) Hepatitis
- c) Typhoid
- d) Vomiting

Sol. D) Smoking causes lung cancer.

12 What is the importance sneezing?

- a) Sneezing helps in increasing the breathing rate
- b) Sneezing expels the foreign particles from the inhaled air
- c) Sneezing helps in increasing the heart rate
- d) Both a and c

Sol. b) When we inhale, the particles get trapped in the hair present in our nasal cavity. However, sometimes these particles may get past the hair in the nasal cavity. Then they irritate the lining of the cavity, as a result of which we sneeze. Sneezing expels these foreign particles from the inhaled air and a dust free, clean air enters our body.

13 Why the appearance of lime water in a test tube changes when we blow into it for a few times?

- a) The test tube may contain impurities which changes the appearance
- b) Lime water contains carbon dioxide which changes its appearance upon blowing
- c) Carbon dioxide in our exhaled air changes the appearance of lime water
- d) Oxygen in our exhaled air changes the appearance of lime water

Sol. C) Carbon dioxide in our exhaled air changes the appearance of lime water

14 The percentage of oxygen in inhaled air is

- a) 20%
- b) 30%
- c) 40%
- d) 21%

Sol. D) Oxygen is 21% in inhaled air.

15 The percentage of carbon dioxide in inhaled air

- a) 0.04%
- b) 0.01%
- c) 0.07%
- d) None of the above

Sol. A) The percentage of carbon dioxide in inhaled air is 0.04%

16 Insects have a network of air tubes _____ called for gas exchange.

- a) Skin
- b) Trachea
- c) Lungs
- d) Diaphragm

Sol. B) 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.

17 Earthworms breathe through _____.

- a) Lungs
- b) Trachea
- c) Skin
- d) Spiracles

Sol. C) The skin of an earthworm feels moist and slimy on touching. Gases can easily pass through them.

- 18 Though frogs have a pair of lungs like human beings, they can also breathe through their
- Nostrils
 - Skin
 - Trachea
 - None of the above

Sol. B) Though frogs have a pair of lungs like human beings, they can also breathe through their skin, which is moist and slippery.

- 19 Gills are well supplied with _____ for exchange of gases.
- Blood vessels
 - Mucus gland
 - Air sacs
 - None of the above

Sol. A) gills in fish help them to use oxygen dissolved in water. Gills are projections of the skin. You may wonder how gills help in breathing. Gills are well supplied with blood vessels for exchange of gases.

- 20 Roots take up air from the air spaces present between the
- Water
 - Root hairs
 - Soil particles
 - None of the above

Sol. C) Like all other living cells of the plants, the root cells also need oxygen to generate energy. Roots take up air from the air spaces present between the soil particles.