

## Gaseous Exchange

Sr	Questions	Answers Choice
1	At night, when photosynthesis is not occurring, what is the net gaseous exchange between a plant and its environment?	A. Plants take in CO <sub>2</sub> and release O <sub>2</sub> . B. Plants take in O <sub>2</sub> and release CO <sub>2</sub> . C. Plants take in both CO <sub>2</sub> and O <sub>2</sub> . D. There is no gaseous exchange.
2	Which respiratory disorder is characterized by inflammation and narrowing of the airways, often triggered by allergens or exercise?	A. Emphysema B. Bronchitis C. Asthma D. Pneumonia
3	The primary chemical stimulus for breathing is the concentration of.	A. Carbon dioxide in blood. B. Oxygen in blood C. Carbon oxide in muscles D. Oxygen in muscles.
4	Point out the FALSE statement about respiration.	A. Gases can easily pass through the walls of the alveoli B. Gas exchange in lungs is very efficient because lungs provide large surface area C. In emphysema, the walls of alveoli break and there is more surface area. D. Dust particles can damage the lung by irritating the inner alveoli surface.
5	What structural feature prevents the trachea from collapsing and ensures a continuous airway?	A. Smooth muscles B. Elastic ligaments C. C-shaped cartilaginous rings D. Bone plates
6	Which gas is released by plants during cellular respiration, both day and night?	A. Oxygen B. Carbon dioxide C. Methane D. Hydrogen
7	Which of the following conditions generally causes stomata to open in most plants during the day?	A. Low light intensity. B. High internal CO <sub>2</sub> concentration. C. High turgor pressure in guard cells. D. Dry atmospheric conditions.
8	What percentage of oxygen inhaled from air during breathing?	A. 21% B. 22% C. 23% D. 24%
9	Every year "World Day" is celebrated on:	A. 31 May B. 30 May C. 31 March D. 21 March
10	What is the primary organ responsible for gaseous exchange in humans?	A. Heart B. Kidneys C. Lungs D. Liver
11	The opening and closing of stomata are regulated by specialized cells known as:	A. Epidermal cells. B. Mesophyll cells. C. Guard cells. D. Xylem cells.
12	Which disease is caused by Streptococcus pneumoniae:	A. Bronchitis B. Emphysema C. Pneumonia D. Asthma
13	Amount of oxygen in expired air is:	A. 21% B. 16% C. 0.04% D. 4%

14 The length of trachea is:  
A. 10 cm  
B. 12 cm  
C. 22 cm  
D. 20 cm

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15 The normal breathing rate in human being is:  
A. 10-40 times per minute  
B. 16-20 times per minute  
C. 30-40 times per minute  
D. None of these

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16 Power of speaking is only gifted to:  
A. Human being  
B. Monkey  
C. Parrot  
D. Crow

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17 Which gas is a waste product of cellular respiration and is expelled from the human body during exhalation?  
A. Oxygen  
B. Nitrogen  
C. Carbon dioxide  
D. Methane

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18 How do root hair cells primarily obtain oxygen for respiration from the soil?  
A. Through direct absorption from atmospheric air.  
B. By diffusing from air spaces present in the soil.  
C. By actively transporting oxygen from water.  
D. By producing their own oxygen through photosynthesis.

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19 The rate of breathing at rest in human is:  
A. 16-20 times per minute  
B. 70-80 times per minute  
C. 80-100 times per minute  
D. 10-20 times per minute

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20 Which sequence correctly represents the path of air from the outside environment to the alveoli during inhalation?  
A. Nasal cavity → Pharynx → Larynx → Trachea → Bronchi → Bronchioles → Alveoli  
B. Larynx → Pharynx → Nasal cavity → Trachea → Bronchi → Bronchioles → Alveoli  
C. Nasal cavity → Trachea → Pharynx → Larynx → Bronchi → Bronchioles → Alveoli  
D. Pharynx → Nasal cavity → Larynx → Trachea → Bronchi → Bronchioles → Alveoli

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