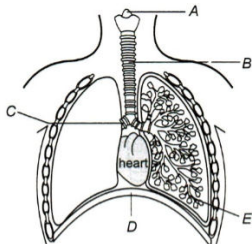


## Topic :-Breathing and Exchange of Gases

- Why carbon monoxide (CO) poisonous for man?
  - It affects the nerves of the lungs
  - It affects the diaphragm and intercostals muscles
  - It reacts with oxygen reducing percentage of oxygen in air
  - Haemoglobin combines with carbon monoxide instead of oxygen and the product cannot dissociate
- Identify the type of pulmonary volume/capacity on the basis of quantity of air present in the lungs given below. (Refer NCERT)
  - ~ 1100 mL – 1200 mL
  - ~ 500 mL
  - ~ 5000 mL – 6000 mLChoose the correct option
  - I – VC, II – FRC, III – RV
  - I – RV, II – TV, III – TLC
  - I – EC, II – IC, III – RV
  - I – TV, II – IRV, III – ERV
- Approximate volume of air a healthy man can expire or inspire per minute is
  - 5000 to 6000 mL
  - 6000 to 7000 mL
  - 6000 to 8000 mL
  - 7000 to 9000 mL
- Which one of the following has the smallest diameter?
  - Right primary bronchus
  - Left primary bronchus
  - Trachea
  - Respiratory bronchiole
- Identify A,B,C,D and E in the given diagram of human respiratory system

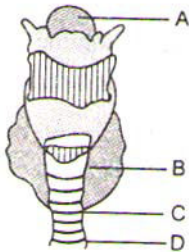


Choose the correct option

- A-Epiglottis, B-Trachea, C-Glottis, D-Diaphragm, E-Bronchiole
- A-Glottis, B-Trachea, C-Bronchus, D-Diaphragm, E-Bronchiole
- A-Adams apple, B-Trachea, C-Bronchus, D-Diaphragm, E-Bronchiole
- A-Epiglottis, B-Trachea, C-Bronchus, D-Diaphragm, E-Bronchiole

6. Identify the correct statement with reference to transport of respiratory gases by blood?
  - a) Haemoglobin is necessary for transport of carbon dioxide and carbonic anhydrase for transport of oxygen
  - b) Haemoglobin is necessary for transport of oxygen and carbonic anhydrase for transport of carbon dioxide
  - c) Only oxygen is transported by blood
  - d) Only carbon dioxide is transported by blood
7. When the body is rapidly oxidizing fats, excess ketone bodies accumulate resulting in
  - a) Pyruvic acid
  - b) Lactic acid
  - c) Ketoacidosis
  - d) ATP
8. Oxygen ( $O_2$ ) is utilised by an organism to
  - a) Directly breakdown the nutrient molecules
  - b) Indirectly breakdown the nutrient molecules
  - c) Obtain nourishment from the food
  - d) Burn the organic compounds indirectly
9. Which of the following statements are not correct?
  - I. Diffusion membrane is made up of 3 layers
  - II. Solubility of  $CO_2$  in blood is higher than  $O_2$  by 25 times
  - III. Breathing volumes are estimated by spirometer
  - IV. High  $H^+$  in blood favours oxygen dissociation
 Choose the correct option
  - a) I and III
  - b) III and IV
  - c) I and IV
  - d) None of these
10. After deep inspiration, capacity of maximum expiration of lung is called
  - a) Total lung capacity
  - b) Functional residual capacity
  - c) Vital capacity
  - d) Inspiratory capacity
11. After a deep inspiration and maximum expiration, the capacity of lungs is known as
  - a) Vital capacity
  - b) Tidal volume
  - c) IRV
  - d) ERV
12. Pick the correct statement.
  - a) The contraction of internal intercostal muscles lifts up the ribs
  - b) The RBCs transport oxygen only
  - c) The thoracic cavity is anatomically an air tight chamber
  - d) Healthy man can inspire approximately 500 mL of air per minute
13. Almost same  $pO_2$  in humans is found in
  - a) Alveoli and tissues
  - b) Oxygenated blood and deoxygenated blood
  - c) Alveoli and oxygenated blood
  - d) Alveoli and deoxygenated blood
14. Tobacco smoke contains carbon monoxide, which
  - a) Reduces the oxygen-carrying capacity of blood
  - b) Causes gastric ulcers
  - c) Raises blood pressure
  - d) Is carcinogenic
15. Which of the following diseases are occupational respiratory disorders?
  - a) Silicosis, fibrosis and asbestosis
  - b) Emphysema and mountain sickness

- c) Asthma and emphysema  
 d) Asthma and AIDS
16. In humans, exchange of gases occurs  
 a) By diffusion  
 b) Between blood and tissue  
 c) Between alveoli and pulmonary blood capillary  
 d) All of the above
17.  
 a) The  $H^+$  released from carbonic acid combines with haemoglobin to form haemoglobinic acid  
 b) Oxyhaemoglobin of erythrocytes is alkaline  
 c) More than 70% of carbon dioxide is transferred from tissues to the lungs in the form of carbamino compounds  
 d) In a healthy person, the haemoglobin content is more than 25 gm per 100 mL
18. The diagram represents the human larynx. Choose the correct combination of labeling from the options given.



- a) A – larynx B – parathyroid C- tracheal cartilage D – trachea  
 b) A – nasolarynx B - thyroid C- tracheal cartilage D - trachea  
 c) A - trachea B - thyroid C - bronchiole D – tracheal cartilage  
 d) A – epiglottis B – thyroid C – tracheal cartilage D - trachea
19. Additional muscles in the ..... impacts the ability of humans to increase the strength of inspiration and expiration  
 Complete the given NCERT statement with an appropriate option  
 a) Chest                      b) Diaphragm                      c) Abdomen                      d) Lungs
20. Exhalation is the process of expulsion of air through respiratory tract.  
 Which of the following figure does illustrate the process of exhalation?

