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Class: 11
Subject: biology
Topic: Breathing and exchange of gases
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1. Carbon monoxide has greater affinity for haemoglobin as compared to oxygen
    A. 1000 times
    B. 200 times
    C. 20 times
    D. 2 times

Answer: B

2. After taking a long deep breath we do not respire for some seconds due to
    A. More CO_2 in blood
    B. More O_2 in blood
    C. Less CO_2 in blood
    D. Less O_2 in blood

Detailed Answer:
Expirations are done to eliminate the CO_2 that is being produced in the body. The extra oxygen delays this process for few seconds.
Answer: C

3. At high altitude, RBCs of human blood will
    A. Increase in number
    B. Decrease in number
    C. Decrease in size
    D. Increase in size

Detailed Answer:
At higher altitudes, due to low pressure of atmospheric oxygen, the body has to carry more oxygen than normal in per volume of blood to supply the body constantly. The increased number of RBC in blood ensures the presence of more haemoglobin and thus more oxygen is carried.
Answer: A

4. Volume of air left after maximum forceful expiration in human lung is
    A. Total lung capacity
    B. Residual volume
    C. Vital capacity
    D. Tidal volume

Answer: B

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5. People living at sea level have around 5 million RBC/rnm while at 5400 m altitude they have 8 million RBC/mm It is. because at high altitude
    A. People eat more nutritive food
    B. People get pollution free air with more oxygen
    C. Atmospheric oxygen is less and more RBCs are needed to pick up required oxygen
    D. More UV radiations which enhance RBC production

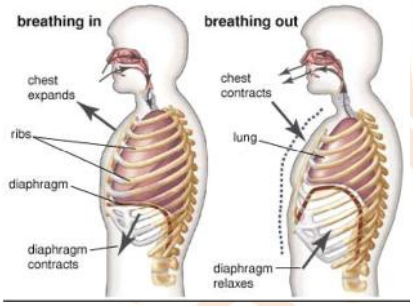
Detailed Answer:
That's why the disease polycythemia, increased number of RBCs in blood is common in people living in higher altitudes.
Answer: C

6. Air is breathed through
    A. Trachea → lungs →alveoli→Nose →larynx→pharynx→
    B. bronchus→ alveoli→ bronchiole s Nostrils →larynx→trachea→
    C. bronchi→ bronchiole s→ alveoli
    D. Nose →mouth→ lungs

Answer: C

7. During expiration diaphragm becomes
    A. Flattened
    B. Dome-shaped
    C. Oblique
    D. Normal

Detailed Answer:



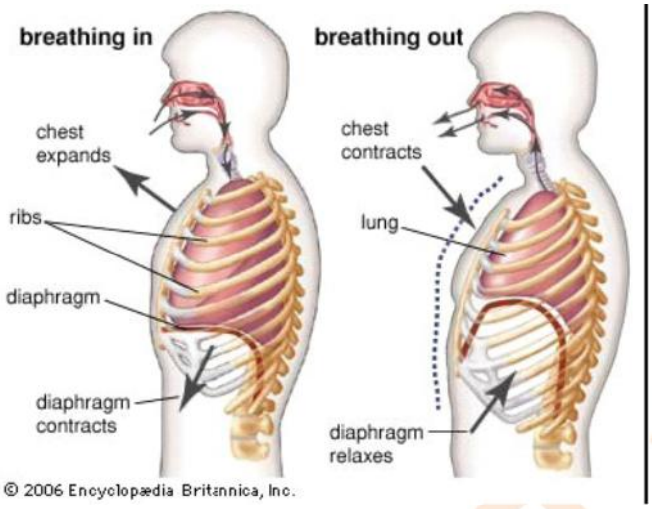
Answer: B

8. Muscles attached to diaphragm contract during inspiration to make it
    A. Fiat
    B. Dome-shaped
    C. Concave
    D. Rotate

Answer: A

9. In human beings, rib case and sternum move upwardly and outwardly during
    A. Exercise
    B. Sudden back injury
    C. Expiration
    D. Inspiration

Detailed Answer:



Answer: D

10. Respiratory mechanism is controlled by
    A. Central nervous system
    B. Sympathetic nervous system
    C. Parasympathetic nervous system
    D. Autonomic nervous system

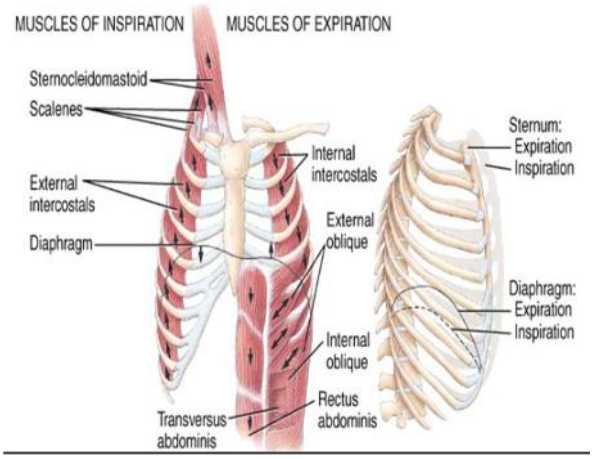
Detailed Answer:
The respiratory centres are located in the medulla oblongata of the brain.
Answer: A

11. Mammals have
    A. Cutaneous respiration
    B. Tracheal respiration
    C. Pulmonary respiration
    D. Gill respiration

Answer: C

12. During inspiration
    A. Diaphragm and external intercostal muscles contract
    B. Diaphram and external intercostal muscles relax
    C. Diaphragm and internal costal muscles contract
    D. Diaphragm and internal costal muscles relax

Detailed Answer:



Answer: A

13. Residual volume m the lungs of an average human is
    A. 500 ml
    B. 3-45 litres
    C. 1000 ml
    D. 1500 ml

Answer: D

14. During inspiration, air passes into lungs due to
    A. Increase in volume of thoracic cavity and fall in lung pressure
    B. Fall in pressure inside the lungs
    C. Increased volume of thoracic cavity
    D. Muscular expansion of lungs

Answer: A

15. Asphyxia occurs due to
    A. Rise in level of CO
    B. Fall in level of CO
    C. Rise of °2 level
    D. Fall in °2 level

Answer: A

16. One reason for emphysema is
    A. Liquor consumption
    B. Smoking
    C. Drug addiction
    D. Heavy exercise

Answer: B

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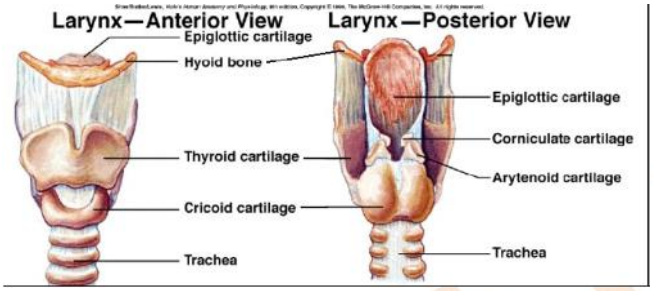
17. Vital capacity of lung is equal to
    A. IRV + ERV + TV
    B. IRV + ERV + TV-RV
    C. IRV + ERV + TV + RV
    D. IRV + ERV

Answer: A

18. Arytenoid cartilage occurs in
    A. Lrynx
    B. Nose
    C. Byoid
    D. Sternum

Detailed Answer:



Answer: A

19. Larynx is also called
    A. Glottis
    B. Voice box
    C. Epiglottis
    D. Vocal cord

Answer: B

20. Asbestos causes cancer of
    A. Liver
    B. Lungs
    C. Lungs and pleural membrane
    D. Urinary bladder

Detailed Answer:
The needle like crystals of asbestos are inhaled with the air into the lungs which reaches the alveoli along with the air, pricks the
alveolar wall and causes scar tissues in lungs.
Answer: C