



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Respiratory system  
Midterm exam 2013 -2014



رؤية تنير دروبكم

1. The nasal septum consist of: Vomer, Nasal
2. Which of the following opens into the inferior nasal meatus? the nasolacrimal duct
3. All of the following is related to the trachea and bronchus except: Stratified Squamous epithelium
4. False about chronic bronchitis: cough 3 months for 3 years
5. Which of the following will decrease Hb saturation ?  
low PH + increase CO<sub>2</sub> + 2.3dbg
6. Which of the following is true about Dextromethorphan?  
Ans: Less constipation
7. Kan fe mo8arane bean il clarithromycin wil Erythromycin
8. albuterol use to maintain asthma patient k2no incorrect
9. All of the following is true about First generation Histamine Antagonist except?  
Ans: They can't pass through the BBB
10. fe so2al ( -life long immunity usually follows infection with histoplasma ) incorrect sentences
11. which of the following is incorrect regarding treatment of TB ?  
o kan il jawab eshe fyo 5 Months or 4 Months (( mo mitzacre ))
12. All of the following is true regarding Chronic Bronchitis except?  
A persistent productive cough for at least three consecutive months in at least three consecutive years

13. Which of the following regarding pneumoconiosis is incorrect?  
Particals inhaled that are larger than 5-10 micrometer in diameter are the most Dangerous
14. The most prevalent chronic occupational disease in the world is? (( not sure ))  
Silicosis
15. Which of the following regarding Laryngeal papilloma is true ?  
Ans: Caused by Human papilloma virus (HPV) type 6 & 11
16. all of the following antioxedant except? Urea
17.  $\text{hco}_3/\text{co}_2 = 20/1$  in normal condition
18. person with weakness in musculoskeletal related to hypoventilation
19. All the following are complications of bronchiectasis except :  
A. Goblet cell metaplasia  
B. Cyanosis (Y)  
C. Brain abscess  
D. Amyloidosis  
E. Bacterimia
20. One of the following is not correct about compression atelectasis :  
The most common cause of bronchial obstruction .
21. One of the following regarding respiratory distress syndrome is correct :  
A.  $\uparrow$  alveolar pressure (Y)  
B.  $\downarrow$  volume  
C.  $\downarrow$  work of breathing  
Mesh metzakreh el 5yarat f ymkn 2lft shwai.
22. which one of the following false about Good pasture syndrome:1-hemoptysis 2-antibody against collagen type(4) 3-fibrosis of alveolar wall

23. whooping cough: -catarrhal>paroxysmal>convalescent

24. ADR : ethambutol : optic neuritis

25. all the following true about paragonimus westermani except: eljwab> infective stage is the unembryonated egg

26. vocal cord attached to: thyroid and arytenoid cartilage

27. all the following true except: parietal pleura covers the outer surface of the lung

### Physiology questions:

1. Which of the following values is above normal in a patient suffering from severe respiratory muscle weakness:
  - A. Tidal Volume.
  - B. Oxyhemoglobin Saturation.
  - C. Vital Capacity
  - D. Arterial PH.
  - E. Arterial PCO<sub>2</sub>. (correct answer)
2. A patient with anemia has which of the following?
  - A. A normal arterial blood O<sub>2</sub> content
  - B. Arterial PO<sub>2</sub> of 99 mmHG
  - C. A decreased venous blood PO<sub>2</sub> (correct answer)
  - D. Hyperventilation
  - E. Cyanosis

3. A patient suffering from chronic respiratory failure

- A. Shows an increased respiratory sensitivity to CO<sub>2</sub>
- B. His ventilation doesn't increase in response to decreased O<sub>2</sub>
- C. Should be given 100% O<sub>2</sub> on admission to hospital
- D. Must have been given O<sub>2</sub> if his pCO<sub>2</sub> greatly increased (correct answer)
- E. Shows an increased blood pH

4. In areas of the lung with lower V/Q ratios

- A. Capillary blood pCO<sub>2</sub> is higher than normal (correct answer)
- B. Alveolar pO<sub>2</sub> is higher than normal
- C. Gas exchange ratio is higher than normal
- D. Pulmonary vascular resistance is lower than normal
- E. Water vapor pressure is higher than normal

5. A patient has the following arterial blood values:

pH=7.52   pCO<sub>2</sub>=20 mmHg   HCO<sub>3</sub><sup>-</sup>=16 mEq/L

He most likely:

- A. Hypo-ventilating
- B. Has an acid base disorder caused by over-production of fixed acid
- C. Has a respiratory alkalosis (correct answer)
- D. Has a complete respiratory compensation
- E. Has renal compensation that causes his arterial HCO<sub>3</sub><sup>-</sup> to increase

6. Oxygen therapy is of great benefit in which of the following types of hypoxia:

- A. Hypoxia caused by anemia
- B. Hypoxia caused by circulatory deficiency
- C. Shunting of un-oxygenated venous blood past the lungs
- D. Tissue metabolic enzyme system is incapable of using O<sub>2</sub>
- E. Hypoxia caused by impaired alveolar membrane diffusion (correct answer)

7. All of the following parameters are decreased on ascending to high altitude except:

- A. Arterial  $pO_2$
- B. Alveolar air  $pCO_2$
- C. Hb % saturation
- D. Systemic arterial pH (correct answer)
- E. Arterial  $O_2$  content

8. The following V/Q ratios represent two different lung regions (A&B)

Under resting conditions: region A:  $V/Q=0.62$  and region B:  $V/Q=0.73$ .

Which of the following statements is correct:

- A. Lung units A and B are both under-perfused
- B. Region B has the greatest alveolar  $pCO_2$
- C. Region A has the greatest end capillary  $pCO_2$  (correct answer)
- D. Region B has the lower end capillary pH
- E. Region A has the greatest alveolar  $pO_2$

9. Which of the following statements about the transport of  $O_2$  &  $CO_2$  by the blood is true:

- A. Most  $CO_2$  is transported in the dissolved form
- B. The % saturation of hemoglobin with  $O_2$  will increase if the arterial  $pCO_2$  is increased
- C. A decrease in the % saturation of hemoglobin with  $O_2$  increases  $CO_2$  transport (correct answer)
- D. In anemia both arterial  $pO_2$  and  $O_2$  content are decreased
- E. The reduced arterial  $pO_2$  in an individual living at high altitude is due to impairment in  $O_2$  diffusion

10. in an individual the ventilation didn't increase when the inspired  $pCO_2$  was increased, but decreased during increased inspired  $pO_2$ .

Which of the following is most likely the cause for this response in ventilation:

- A. Dysfunctional central chemoreceptors (correct answer)
- B. Hypersensitivity of the peripheral chemoreceptors
- C. Bronchial muscle spasm
- D. Diaphragmatic fatigue
- E. Normal functioning of the central and peripheral chemoreceptors

11. A 12 years-old boy has a severe asthmatic attack with wheezing, his arterial  $pO_2$  is 60 mmHg and  $pCO_2$  is 30 mmHg. His:

- A.  $FEV_1/FVC$  % is increased
- B. V/Q ratio is increased in the affected areas of his lung
- C. Arterial  $pCO_2$  is higher than normal because of inadequate gas exchange
- D. arterial  $pCO_2$  is lower than normal because hypoxemia is causing him to hyper-ventilate (correct answer)
- E. Residual volume is reduced

12. in a standing person which of the following is higher at the apex of the lung than at the base:

- A. Blood flow
- B. Ventilation
- C. Alveolar  $pCO_2$
- D. Lung compliance
- E. Physiological dead space (correct answer)

13. At the end of normal quiet expiration before the start of inspiration the lungs are in:

- A. Residual volume (RV)
- B. Expiratory reserve volume (ERV)
- C. Functional residual capacity (FRC) (correct answer)
- D. Inspiratory reserve volume (IRV)
- E. Total lung capacity (TLC)