

# Respiratory system midterm

## Biochemistry:

**Q1)** After 3 years as medical student, you were suffering from depression and decided to commit suicide by taking 50 pills of salicylate, salicylate overdose cause which of these:

**Ans :** Respiratory alkalosis and metabolic acidosis .

**Q2)** A patient has the following ABG results;  $p\text{CO}_2 = 48$ ,  $\text{Po}_2=102$  &  $\text{PH}=7.1$ .

This patient has:

**Ans :** Respiratory acidosis .

**Q3)** A patient has the following ABG results;  $p\text{CO}_2 = 32$ ,  $\text{Po}_2=47$  &  $\text{PH}=7.8$

This patient has:

**Ans :** Respiratory alkalosis .

## Physiology

**Q4)**  $\text{ERV}+\text{RV}=\text{_____}$

**Ans :** FRC

**Q5)** Deep inspiration decrease?

**Ans :** Pleural pressure .

**Q6)** Expired air has \_\_\_\_\_ less than AMP?

**Ans :**  $\text{N}_2$  &  $\text{O}_2$ .

**Q7)** Which of the following statements is wrong about Haldane effect?

**Ans :** Decrease  $\text{H}^+$ .

**Q8)** Pressure increase when?

**Ans :** Radius decrease

**Q9)** What happened if O<sub>2</sub> saturation < 70%?

**Ans :** **Vasoconstriction**

**Q10)** Heavy smoker increases which of the following?

**Ans :** **Physiologic dead space and shunt .**

**Q11)** Which of the following conditions is associated with COPD?

**Ans :** **Air way resistance increase .**

**Q12)** Which of the following conditions is associated with Surfactant?

**Ans :** **decrease Surface tension**

**Q13)** Which of the following is inversely proportional with Diffusion?

**Ans :** **Distance**

**Q14)** Which of the following consequences is associated with left heart failure?

**Ans :** **Pulmonary edema .**

**Q15)** Increase in pulmonary blood flow will decrease?

**Ans :** **Capillaries resistance .**

**Q16)** Short times of saturation during heavy exercise?

**Ans :** **Increase surface area of capillaries .**

**Q17)** Alveoli that have good ventilation but no perfusion?

**Ans :** **149 mmHg pO<sub>2</sub> and 0 mmHg pCO<sub>2</sub> .**

**Q18)** In oxygen curve, one of these is not true:

**Ans :** **decrease H ion**

**Q19)** What is the different between pulmonary and systemic circulation?

**Ans :** **pulmonary circulation has small blood volume**

**Q20)** Pulmonary wedge pressure?

**Ans :** Left arterial pressure

## Anatomy:

**Q21)** Wrong statement:

**Ans :** Stylopharyngeal muscle innervated by accessory nerve .

**Q22)** Anterior to left carotid artery?

**Ans :** Left brachiocephalic vein .

**Q23)** Which of the following structures is the most laterally located in the mediastinum?

**Ans :** Sympathetic trunk

**Q24)** Choose the FALSE statement?

**Ans :** The narrowest part of larynx is rima vestibuli

**Q25)** Which of the following statements is true about histology of nasal cavity?

**Ans :** Thin wall of veins called cavernous sinus .

**Q26)** Structure innervated by 3<sup>rd</sup> posterior intercostal artery (**NOTE** → from the original question you should know that is innervated by 3<sup>rd</sup> and the origin is thoracic aorta)?

**Ans :** Thoracic aorta .

**Q27)** Anterior to left carotid artery?

**Ans :** Left brachiocephalic vein

**Q28)** When will pharyngeal arches arise?

**Ans :** At 4<sup>th</sup> and 5<sup>th</sup> week .

**Q29)** True statement about vestibule of the nose?

**Ans :** It has sebaceous gland

**Q30)** Which of the following structures is most anteriorly located in the mediastinum?

**Ans :** Internal thoracic artery

**Q31)** Which of the following structures passes through esophagus hiatus?

**Ans :** Vagus nerve .

**Q32)** The orientation of manubrium?

**Ans :** Forward downward .

**Q33)** Choose the correct statement:

**Ans :** 4<sup>th</sup> pouch – superior parathyroid gland

**Q34)** What is the type of Manubriosternal joint?

**Ans :** Symphysis

**Q35)** Which of the following statements is true?

**Ans :** Mandible and maxilla develop from the 1<sup>st</sup> branchial arch .

**Q36)** Respiratory primordium is surrounded by?

**Ans :** Pharyngeal arches

**Q37)** Tracheal and cricoid cartilages development from?

**Ans :** 6<sup>th</sup> pharyngeal arch

**Q38)** Which of the following irritate maxillary sinus?

**Ans :** Middle meatus

**Q39)** Which of the following structure lies directly anterior to the trachea?

**Ans :** Arch of aorta .

**Q40)** If there is injury in the lateral aspect of the right 7<sup>th</sup> intercostal space, which organ will be affected?

**Ans :** Inferior lobe of the lung .

**Q41)** Which part of the pleura / lung will lead to pain in the cervical region if it get injured?

**Ans :** Mediastinal parietal pleura

**Q42)** Wrong statement:

**Ans :** All constrictor muscles innervated by pharyngeal plexus .

**Q43)** True about embryology:

**Ans :** Epithelial lining of larynx originates from endoderm

**Q44)** All of them true except:

-apical part receives no blood during diastole

-increase blood supply significantly to apical part during exerciseate

-intermittent blood flow to the inferior part

**Ans :** intermittent blood flow to the inferior part

**Q45)** Which of the following is true about olfactory mucosa?

**Two accepted answers :**

-Lamina propria has bowman gland

-Stem cells give support cells and olfactory cells.

**Q46)** Foundation of larynx?

**Ans :** Cricoid cartilage

## Microbiology:

**Q47)** Which of the following structures isn't of B.pertusis ?

**Ans :** Flagellum

**Q48)** Case: A child with cough and his blood test reveals Lymphocytosis, this patient is mostly infected with?

**Ans :** B. pertusis .

**Q49)** Which of the following statements is FALSE about S.pyogens?

**Ans :** M protein stimulates phagocytosis.

**Q50)** Why influenza virus vaccine is changed every year?

**Ans :** Antigenic shift .

**Q51)** True about H. influenza?

**Ans :** Encapsulated stains cause sepsis .

**Q52)** Best diagnosis method used for RSV?

**Ans :** Nasal washing for antigenic detection .

**Q53)** Which of the following statements is TRUE about RSV?

**Ans :** F protein for syncytium formation .

**Q54)** Gram negative bacteria on chocolate agar plate?

**Ans :** H. influenza

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Special thanks for everyone contributed in listing these questions

These question are collected by students, it's okay if there is any mistake.