

RS MID EXAM

021

beta
carotenos



Anatomy

1-The trachea in the superior mediastinum has direct relation with all of the following except:

- A) Right recurrent laryngeal nerve
- B) Arch of the aorta
- C) Esophagus
- D) Right vagus nerve
- E) Left recurrent laryngeal nerve

2-Which of the following is the main cause of epistaxis?

- A) Long sphenopalatine
- B) Short sphenopalatine
- C) Greater palatine
- D) Lesser palatine
- E) Infraorbital

3-A stab perforating wound in which of the following will not cause right pneumothorax:

- A) 9th intercostal space midaxillary
- B) 9th intercostal space midclavicular
- C) 9th intercostal space midscapular
- D) Right border of sternum at sternal angle
- E) Anterior of the posterior triangle of the neck

4- Injury in the middle cranial fossa affect the pterygoid canal which of the following nerves will be affected:

- A) Deep and lesser petrosal
- B) Greater and lesser petrosal
- C) Deep and greater petrosal
- D) Postganglionic sympathetic and parasympathetic
- E) Preganglionic sympathetic and parasympathetic

A,A,B,C

5- All of the following cross the diaphragm from lesser orificies except:

- A) Left phrenic nerve
- B) Superior epigastric artery
- C) Thoracic duct
- D) Sympathetic chain
- E) Greater splanchnic artery

6-Which of the following is site of drainage of frontal sinus?

- A) Bulla ethmoidalis of middle meatus
- B) Superior meatus
- C) Inferior meatus
- D) Infundibulum of middle meatus
- E) Hiatus semilunaris of middle meatus

7- which type of reccurent laryngeal nerve injuries requires emergent tracheostomy:

- A) Unilateral complete injury
- B) Unilateral Partial injury
- C) Bilateral partial injury
- D) Both Complete and partial bilateral injury
- E) Bilateral complete injury

8- one of the following membranes forms the vocal ligament:

- A) Thyroid
- B) Cricothyroid
- C) Quadrangular
- D) Thyrohyoid
- E) Cricotracheal

C,D,C,B

9- incorrect about cricothyroid muscle:

- A) has two heads
- B) innervated by the external laryngeal nerve
- C) the nerve supplying it is accompanied by the inferior thyroid artery
- D) tenses the vocal cords

10- all of the following innervates the lateral nasal wall except:

- A) Nasopalatine
- B) Greater palatine
- C) Anterior ethmoid
- D) Infraorbital
- E) Short sphenopalatine

11- one of the following statements about pleural innervation is incorrect:

- A) Mediastinal pleura by phrenic nerve
- B) Diaphragmatic pleura by phrenic nerve
- C) Costal pleura by intercostal nerves
- D) Cervical pleura by cervical nerves
- E) Visceral pleura by autonomic innervation

12- Which of the following is not longer than its counterpart?

- A) Left pulmonary artery
- B) Left recurrent laryngeal nerve
- C) Right intercostal arteries
- D) Left brachiocephalic vein
- E) Left main bronchus

C,A,D,A

13) Person in an erect position and a foreign object got into his respiratory tract which the following false :

Answer: it will go to right lung- apicobasal segments

Histology

- 1) Regarding Type 1 alveolar cells all of the following is true, except?
 - a) Simple squamous attenuated cells
 - b) Form 97% of alveolar surface
 - c) Contain lamellar bodies
 - d) Has desmosomes
 - e) Has occluding junctions

- 2) One of the following statements is incorrect according to terminal bronchiole:
 - a) Complete absence of cartilage
 - b) Single layer of ciliated and non-ciliated cuboidal epithelium
 - c) in terminal bronchioles we can find aggregations of lymph nodes

- 3) All of the following has pseudostratified columnar epithelial lining, except?
 - A) Inner surface of epiglottis
 - B) Vestibular fold
 - C) terminal bronchiole

- 4) One of the following is wrong about Dust cells?
 - A. The most abundant cells in the alveolar surface
 - B. Founded in interstitium
 - C. Not Founded in respiratory membrane
 - D. They migrate from the blood as monocyte and settle in lung.
 - E. They can reach the pharynx and reswallowed

C,C,C,A

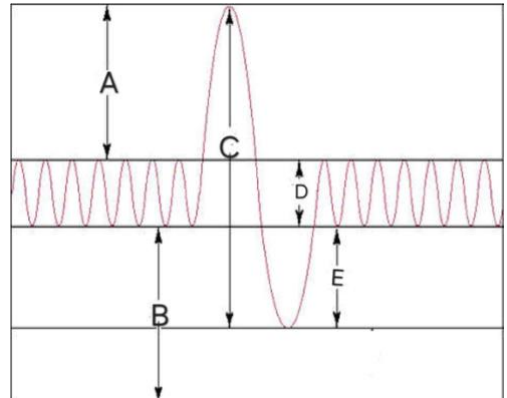
Physiology

1- Which of the following has the highest P_{CO_2} :

- A) Interstitium
- B) Mixed expiratory air
- C) Pulmonary artery
- D) Pulmonary vein
- E) Intracellular compartment

2- When respiratory muscles of breathing relaxed, lungs will be at which of the following...

- a) A
- b) B
- c) C
- d) D
- e) E



3- Regarding physiological dead space (V_D) choose the False statement:

- A) If V/Q ratio is increased, V_D will decrease
- B) V_D is equal or more than anatomical dead space.
- C) In normal individual $V_D = ADS$
- D) is defined as the volume of gas which doesn't take part in gas exchange.
- E) To measure V_D , you need to measure mixed expiratory P_{eCO_2} .

E,B,A

- 4- In a patient the respiratory rate is 20/min and the tidal volume is 500ml (ADSV=150ml) calculate alveolar ventilation
- A) 10000ml/min
 - B) 7000ml/min
 - C) 3000ml/min
 - D) 4200ml/min
 - E) 5000ml/min
- 5- Which of the following statements is incorrect about surfactant:
- A) Amphipathic nature
 - B) Cause alveolar stability
 - C) Prevent pulmonary edema
 - D) Large alveoli has lesser surface tension compared to smaller alveoli
 - E) Glucocorticoid administration in pregnant woman enhances its production.
- 6- one of the following statements is incorrect about ARDS:
- A) $P_{o_2} = 100$ exclude ARDS.
 - B) p_{o_2}/F_{iO_2} ratio < 200
- 7-which of the following is true regarding pulmonary function
- A) FRC is measured using helium dilution method
 - B) Spirometer is used to measure ADS
 - C) Minimal volume is a routine clinical test
 - D) TLC is the volume of air expired from full inspiration to full expiration.
 - E) Residual volume is the resting volume of the lung.

B,D,A,A

8- ALL of the following is correct about infant respiratory distress, except:

- A) Result in expansion of the alveoli and rupture as compensatory mechanisms
- B) lung compliance is low
- C) limited surfactants production
- D) high surface tension
- E) PEEP and CPAP are used as manegment

9- which of the following is true regarding gas exchange in alveoli :

- A) exercise increases the length of capillaries
- B) o₂ is perfusion limited,co₂ is diffusion limited
- C) exchange continues until the end of the capillary

A,A

Pathology

1- A 35-year-old gentleman he is a non smoker and barrel chested suffers from dyspnea and his lower zone of the lung has something , his brother has similar manifestations what of the following is most likely to be the reason for his disease

- A) increase in proteases
- B) lack of anti elstases
- C) active pulmonary infection

2- which of the following is true about atelectasis

- A) emphysema is associated with resorption atelectasis
- B) defined as low lung volume due to alveolar destruction
- C) mucus bulge cause compression atelectasis
- D)accumulation of fluid in pleura causes cicatrization

3- true about chronic bronchitis:

- a) diagnosed by persistent cough for at least 2 months for three consecutive years
- b) associated with metaplasia and dysplasia
- c) need regular clinical, lab and histological findings for diagnosis

4- Which of the following is true regarding acute respiratory distress syndrome:

- a) Gradual onset
- b) Graded by arterial oxygenation.
- c) In organized stage, you can find microscopic appearance of fibrin rich edema fluid.

B,A,B,B

Microbiology

1- A patient presents with paranasal swelling and bloody exudate from both his eyes and nares, and he is nearly comatose. Necrotic tissue in the nasal turbinate's show no septate hyphae consistent with Rhizopus, Mucor, or Absidia. What is the most likely compromising condition underlying this infection?

- A) Chronic sinusitis
- B) diabetic ketoacidosis
- C) Neutropenia
- D) B-cell defects
- E) AIDS

2- A 10-year-old girl with an incomplete vaccination history presents to her pediatrician with a fever of 38.6, sore throat, malaise, and difficulty breathing. Physical examination reveals cervical lymphadenopathy and leathery in the rear of the oropharynx. The area bleeds profusely when disturbed, Which of the following correctly describes the causal agent?

- A) Gram-negative rod; toxin that inhibits protein synthesis.
- B) Gram-negative rod; toxin that increases cAMP.
- C) Gram-positive aerobic rod, toxin that inhibits protein synthesis
- D) Gram-positive anaerobic rod, toxin that inhibits protein synthesis.
- E) Gram-positive aerobic rod, toxin that increases cAMP.

3- In which stage of pertussis is the characteristic whooping sound made?

- A) convalescence
- B) catarrhal
- C) Paroxysmal
- D) Prodromal
- E) predromal

4- Which of the following statements concerning antigenic drift influenza viruses is Correct?

- A. It results in major antigenic change.
- B. It is exhibited only by influenza A viruses.
- C. It is caused by frameshift mutations in viral genes.
- D. It results new subtypes over time
- E. It affects predominantly the matrix protein.

5- Highly pathogenic H5N1 avian influenza HPAI can infect humans with a high mortality rate, but it has not yet resulted a pandemic. The following are characteristics of HPAI, except for one. Which one is not?

- a- Efficient human-to-human transmission
- b- Presence of avian influenza genes
- c- Efficient infection of domestic poultry
- d- Contains segmented RNA genome.
- e-Both high pathogenicity and low pathogenicity avian influenza viruses can cause disease in human beings

B,C,C,D,A

6- Which of the following toxins can cause scarlet fever?

- a-DNAse
- b-Streptolysin S
- c-Hyalinase.
- d-C5a protease
- e-Erythrogenic toxin

7- All the following statements regarding the hyaluronic acid capsule of *S pyogenes* are correct except:

- a- It is responsible for the mucoid appearance of the colonies in vitro.
- b- It is antiphagocytic.
- c- It binds to CD44 on human epithelial cells.
- d- It is an important virulence factor.
- e- A vaccine against the capsule is currently available.

8- influenza vaccines are updated seasonally due to: (the question got deleted)

- a) antigenic shift
- b) antigenic drift
- c) antigenic shift & drift
- d)genetic recombination

9- Which of the following cause severe avian influenza illness, and raises concerns for health authorities?

- a) H1N1
- b) H3N2
- c) H5N1
- D) H7N9

E,E,B,C

10) Regarding Paracoccidioides causing paracoccidia brasilian, what is the primary route of infection:

- a) Inhalation
- b) Ingestion
- c) Direct contact
- d) Vector borne.
- e) sexual transmission

11) a way to distinguish pneumococcal pneumonia from other types:

- A) rusty brown sputum
- B) fever, malaise, cough
- C) gradual onset

12) facultative anaerobes mean:

- A) ordinary aerobes but can grow in absence of oxygen
- B) ordinary anaerobes but can grow in presence of oxygen

13)clinical presence of epiglottitis by hemophilus influezae :

- A) drooling, difficulty in swallowing,dyspnea
- B) neck stiffness
- C) high graded fever
- D) whooping cough
- E) barking cough

14) All of the following statements are true except

- A) latent infection in TB is contagious
- B) latent TB infection isn't a risk factor for developing the diseases
- C) latent TB infection cause symptoms or disease

15) what is the role of trehalose dimycolates(cord factor) in mycobacterium cell wall:

- A) responsible for inhibiting phagolysosome formation
- B) serpentine growth

A,A,A,A,A,B