



Final Respiratory System

021 Batch



Pathology

- 1) In which of the following diseases lymph node could be involved:
- a) Sarcoidosis
 - b) TB
 - c) Silicosis
 - d) Sarcoidosis & TB
 - e) All of above

Ans: e

- 2) Which of the following is correct:
- a) Silicosis affects the lower lobe of lungs.
 - b) Bronchiectasis involves the upper lobes.
 - c) Nonspecific interstitial pneumonia predominant the lower lobe reticular opacities
 - d) Asbestos is centered in the upper zone of lung.

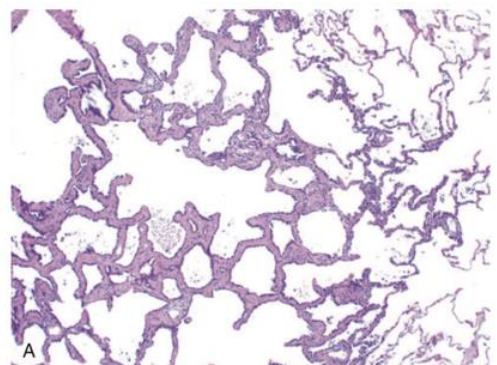
Ans: c

- 3) Good pasture is associated with:
- a) IgG finding in alveolar septa is diagnostic.
 - b) Necrotizing hemorrhagic interstitial pneumonia
 - c) Associated with PR3-ANCA

Ans: b

- 4) (A case) a patient with lesion in left lung 0.4 cm in size, what is the correct statement for his case:
- a) Invasive neoplasm
 - b) Can progress to be invasive.

Ans: b



5) Which of the following is true:

Ans: Secondary TB is less associated with lymph node involvement.

6) A 70 year old patient came with dyspnea, he worked 40 years in painting & insulation. in examination we will find.

Ans: Pleural effusion

7) Correct match:

Ans: cryptogenic organizing pneumonia — Masson body

8) Which of the following is true:

Ans: Mesothelioma is a malignant tumor that is associated with asbestos exposure.

9) Which of the following is true:

Ans: Horner syndrome is related to an apical neoplasm.

10) Correct match:

Ans: Mycobacterium bovis — oropharyngeal TB

11) True statement:

Ans: Coal workers can develop emphysema independently of smoking.

Physiology

1) Why does Divers hyperventilate before diving?

- a) To increase O₂ content in lungs
- b) To reduce arterial CO₂

Ans: b

2) When does the elasticity of the lung become greater than the chest elasticity?

- a) In total lung capacity
- b) Between residual volume & FRC
- c) Greater than FRC

Ans: c

3) Incorrect statement:

- a) at the closing volume the apical alveoli are closed
- b) The apical is poorly ventilated.

Ans: a

4) IF RMV and consumption of CO₂ were constant, an increase in which of the following will cause a decrease in arterial CO₂:

- a) Anatomical dead space
- b) Respiratory rate
- c) Tidal volume
- d) Breathing frequency

Ans: c

5) Which of the following is true about the apex in comparison with the base of the lung:

- a) Ventilation is higher.
- b) The end capillary O₂ pressure is higher.

Ans: b

6) Regarding pulmonary vascular resistance which of the following is true:

- a) Low in high lung volume
- b) Lower than systemic resistance

Ans: b

7) Which of the following is true regarding a patient with Anemia:

- a) Mixed venous pO₂ is reduced.
- b) Arterial pO₂ is reduced.
- c) Arterial - venous [O₂] difference decrease

Ans: a

8) What limits the maximum VO₂?

- a) Lung capacity
- b) Mitochondrial enzymes
- c) Cardiovascular system
- d) Mitochondria number

Ans: c

9) All the following is true regarding peripheral chemoreceptors except:

- a) Response to low O₂
- b) Is triggered by CO₂.
- c) Sensitive to H⁺ content

Ans: b

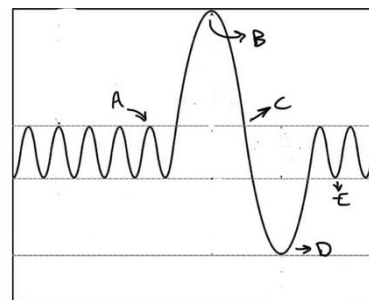
10) All of the following increase in emphysema, except?

- a) Diffusion lung capacity
- b) Compliance

Ans: a

11) Highest alveolar vessels resistance is in which of the following point?

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



Ans: B

Embryology

- 1) A neonate after birth was examined by a doctor. In chest x-ray image, the doctor find a peripheral lung opaque. What the most common cause of this?
- a) Collapsed lung due to traumatic delivery
 - b) Congenital deficiency of surfactant
 - c) Pleural effusion
 - d) This is normal, where alveoli will be inflated several days after delivery

Ans: d

- 2) The medial nasal prominence participate in all of the following except?
- a) Tip of the nose
 - b) Palatine shelves
 - c) Nasal crest
 - d) Philtrum of upper lip
 - e) Upper jaw

Ans: b

- 3) Wrong statement:
- a) Alveoli number at birth is same as number in adults
 - b) Most of alveoli develop after birth

Ans: a

PBL

- 1) 30 years old patient came to the ER complaining from fever, cough, shortness of breath and chest pain. Physical examination shows tachycardia, tachypnea, temperature of 38,5 c, O2 saturation of 85% and crackles are heard in the lower posterior lobe, the patient was admitted, which of the following is false :
- a) the patient most likely has pneumonia
 - b) emphysema is a complication of this condition
 - c) Chest Xray is mandatory for the investigation of this case
 - d) the main choice of treatment is antibiotics
 - e) The patient can be treated at home and there's no need for admission

Ans: e

- 2) lady in sixties with DM2 & HTN came with pneumonia, she has acute shortness of breath and tachypnea, which of the following is true regarding her case? (a case shows ARDS)

Ans: patient must be given supplemental oxygen therapy and placed on a mechanical ventilator.

Microbiology

1) (Similar case) Sarah, a 28-year-old office worker, presents to her primary care physician with complaints of nasal congestion, sneezing, runny nose, barking cough and a sore throat. She mentions that she has been feeling unwell for the past three days. Sarah reports no significant medical history and is not taking any medications. She denies any recent travel or exposure to sick contacts. PE shows no cervical lymphadenopathy enlargement and redness of the pharynx. What is the most likely cause of Sarah's symptoms?

- A) Influenza virus
- B) Respiratory syncytial virus (RSV)
- C) Rhinovirus
- D) Parainfluenza virus

Ans: c

2) Wrong statement:

Ans: croup appears in X-ray with thumb sign on anterior neck.

3) Wrong statement regarding RSV:

- a) RSV replication begins in epithelial cells of the nasopharynx.
- b) has vaccines which are available for neonates

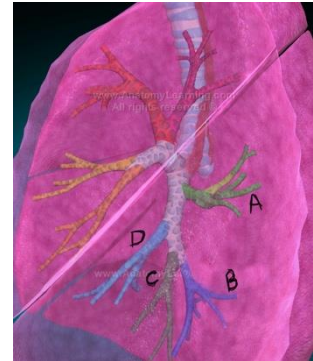
Ans: b

Labs

Anatomy:

1) One of the patient's teeth fell out and he swallowed it after the dentist extracted it while he was lying down. What is the most common branch from the following branches the tooth can be founded in it? **(Actually, it isn't the real picture but looks like it 😊)**

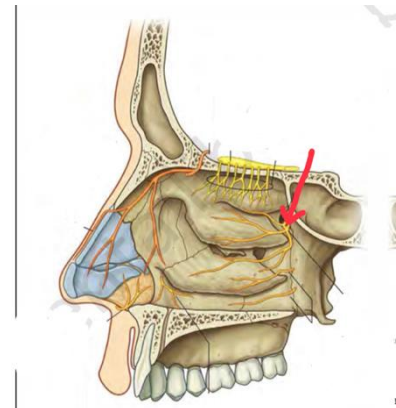
- a) A
- b) B
- c) C
- d) D



Ans: A

2) Identify the following structure:

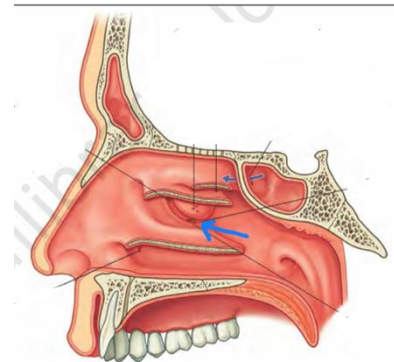
- a) asopalatine nerve
- b) Greater palatine nerve
- c) Lesser palatine nerve
- d) Sphenopalatine nerve
- e) Anterior ethmoidal nerve



Ans: d

3) the targeted structure drains which of the following:

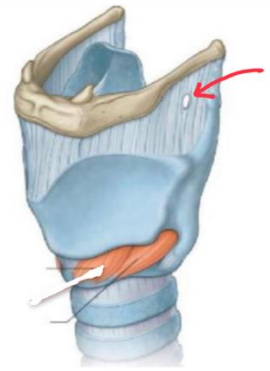
- a) Maxillary sinus
- b) Nasal sinus
- c) Sphenoidal sinus
- d) Frontal sinus
- e) Middle Ethmoidal sinus



Ans: a

4) which artery of the following pass through this foramen:

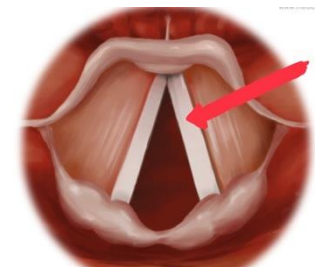
- a) Superior thyroid artery
- b) Superior laryngeal artery
- c) Inferior laryngeal artery
- d) Internal laryngeal artery



Ans: b

5) which of the following muscles doesn't work on the structure above: **(it's not the real one in our exam, but similar I guess)**

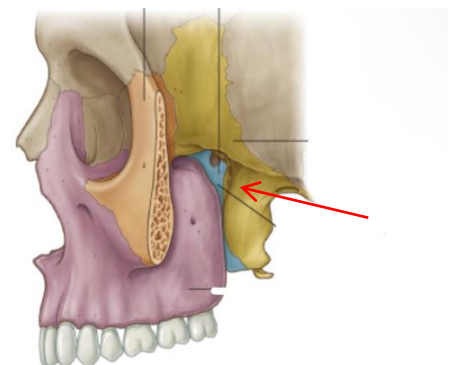
- a) Vocalis muscle
- b) Lateral crico-arytenoid muscle
- c) Posterior crico-arytenoid muscle
- d) Cricothyroid muscle
- e) Oblique arytenoid muscle



Ans: e

6) Which of the following isn't found in this fossa?

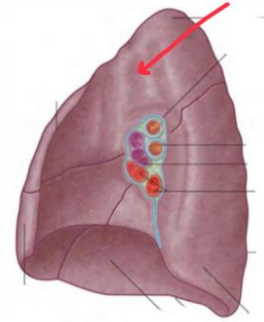
- a) Maxillary nerve
- b) Pterygopalatine ganglion
- c) Mandibular nerve
- d) Palatovaginal nerve
- e) Sphenopalatine nerve



Ans: c

7) the targeted impression is for which of the following:

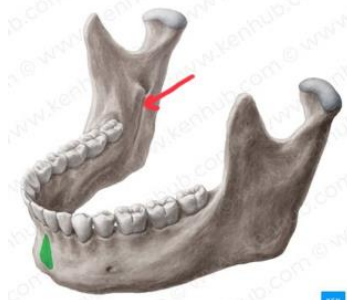
- a) superior vena cava
- b) Thoracic duct
- c) Esophagus
- d) Trachea
- e) Brachiocephalic vein



Ans: d

8) Which of the following pass through this foramen?

- a) Lingual nerve
- b) Inferior alveolar nerve
- c) Inferior thyroid nerve

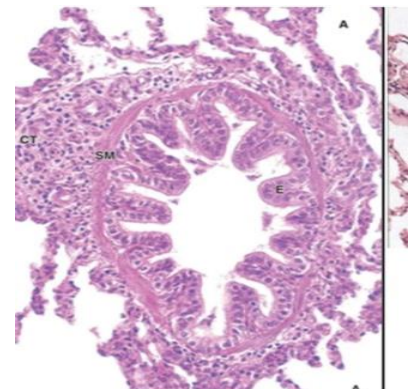


Ans: b

Histology

1) Identify the following structure:

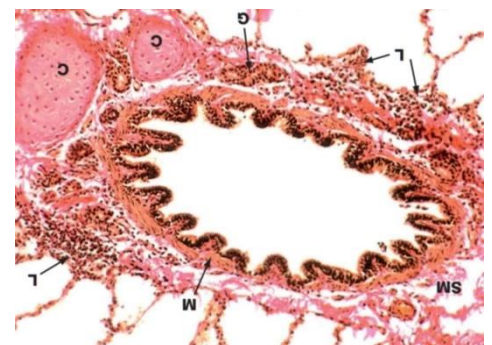
- a) Primary bronchus
- b) Secondary bronchus
- c) Tertiary bronchus
- d) Large Terminal bronchiole
- e) Small terminal bronchiole



Ans: d/e ?

2) Also identify the following structure:

- a) Primary bronchus
- b) Secondary bronchus
- c) Tertiary bronchus
- d) Large Terminal bronchiole
- e) Small terminal bronchiole

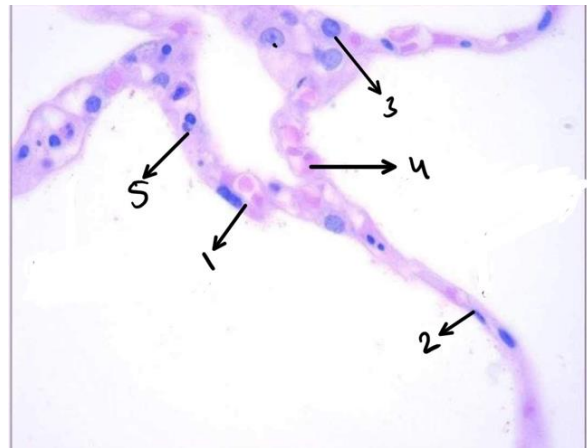


Ans: e

3) Which cells produce the surfactant?

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5

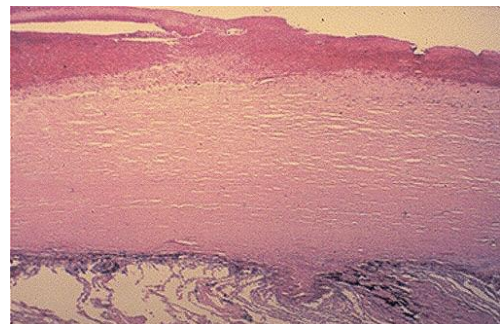
Ans: c



Pathology :

1) Identify the following structure:

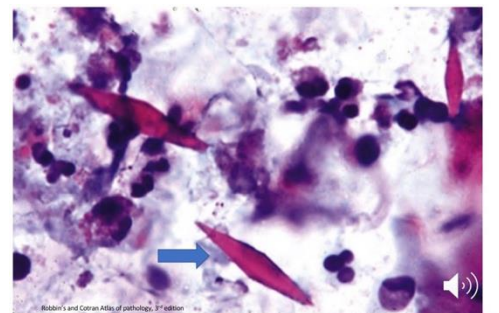
Ans: Fibrous pleural plaque



2) Identify the following structure:

- a) Charcot-Leyden crystals
- b) Schauman body
- c) Asteroid body

Ans: a



Microbiology:

1) In a laboratory tube shown catalase positive and coagulase positive tests , what's the microorganism inside :

- a) Enterococci
- b) S.pneumoniae
- c) Staph aureus
- d) S. pyogenes
- e) Staph epidermidis

Ans: c

2) Which of the following tests used to differentiate strep pneumoniae:

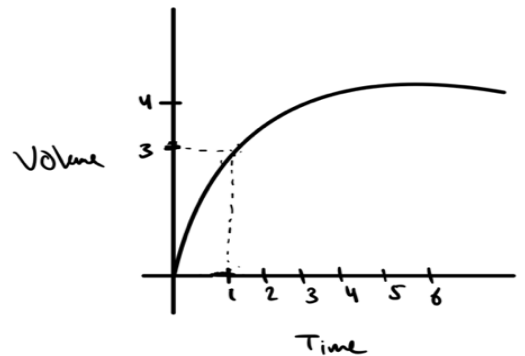
- a) Optichocin sensitivity
- b) Bacteriacin sensitivity
- c) Bile acid resistance

Ans: a

Physiology:

1) What is true regarding the next graph?

- a) Shows An obstructive lung disease.
- b) FEV1/FVC ratio is normal.



Ans: b

2) A case shows the following data, what is the diagnosis?

	% of predictable	% of change after bronchodilator
FVC	98%	
FEV1	50%	7%
FEV1/FVC	50%	

- a) COPD
- b) Asthma
- c) Restrictive lung disease

Ans: a

Pharmacology

;) past.p.

1) Wrong statement:

Ans: interferons are viruses.

2) M

97. all of the following are anti influenza except:

- A) amantadine
- B) Rimantadine
- C) zanamivir
- D) acyclovir
- E) oseltamivir

ANSWER : D

3) M

75. the most effective drugs used in tuberculosis:

- A) Streptomycin and ethionamide
- B) Isoniazid and rifampin
- C) Rifampin and PAS

ANSWER : B

4) M

99. False about Viruses:

- A) Can't be Classified by morphology
- B) virus must enter the host cell
- C) some virus has envelop

ANSWER : A

5) M

66. Drugs acting on the afferent limb=Sensory nerves include which of the following?

- A) Bromhexine
- B) Theophylline
- C) All the mentioned
- D) Carbocisteine
- E) Lidocaine

ANSWER : E

6) M

71. Regarding drugs affecting mucociliary function, all the following are true except:

- A) Decrease mucus production
- B) Increase cough effectiveness
- C) Increase the volume of secretions
- D) Change the consistency of mucus
- E) Increase mucociliary clearance

ANSWER : B

7) M

72. Which of the following drugs is narcotic?

- A) Glauaine
- B) Diamorphine
- C) Pholcodine

ANSWER : B

8) M

76. Tuberculosis is treated by using many combined drugs, the rationale behind this approach is to:

- A) To shorten the period required for the treatment
- B) To decrease bed rest time
- C) To decrease the side effects
- D) To avoid development of resistance

ANSWER : D

9) M

84. Which of the following is false regarding Isoniazid?

- A) Small molecule, water soluble
- B) Structurally related to pyridoxine
- C) Prodrug activated by KatG
- D) Binds to B subunit of bacterial RNA polymerase

ANSWER : D

10) M

98. false about acyclovir:

- A) Can cause skin rash
- B) Used to treat herpes viruses infection
- C) Wide spectrum anti viral drug
- D) Available as oral tablets and IV
- E) Restricted to immunocompromised patients

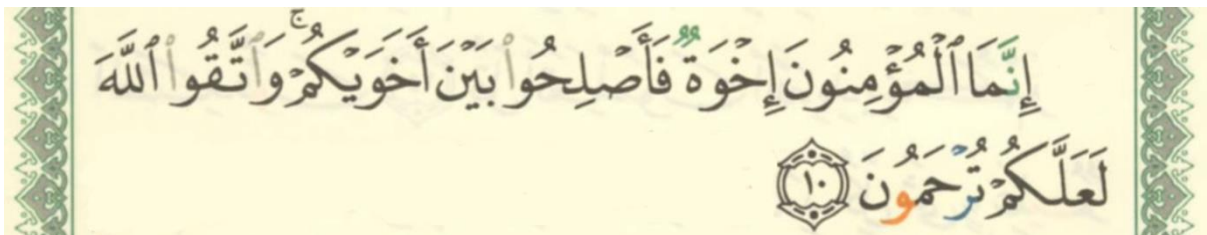
ANSWER : E

11) M

113. all of the following drugs are used in asthma except:

- A) Beta-2 adrenergic antagonist
- B) Beclomethasone
- C) Theophylline

ANSWER : A



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