Respiratory system



Past papers – Final

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Lecture 1

1. With development of the nose, the philtrum of the upper lip is developed from which of the following?

A) Frontonasal prominence
B) Maxillary prominence
C) Lateral nasal prominence
D) Medial nasal prominence
E) Palatal Prominence

ANSWER : D

2. Cleft lip is a result of failure of fusion between maxillary prominence and

- A) Medial nasal processes
- B) Lateral nasal processes
- C) Mandibular prominence

ANSWER: A

3. Laryngeal atresia, all of the following statements are correct except :
A) Prenatal ultrasonography permits diagnosis of these anomalies
B) It is a rare anomaly
C) Distal to atresia the airways become constricted
D) It is accompanied with fetal ascites
E) It is known as congenital high airway obstruction syndrome

ANSWER : C

4. During early development of the respiratory system the laryngotracheal tube maintains in communication with the primitive foregut. Which of the following embryonic structure is responsible for partitioning these two embryonic structure ?

- A) Laryngotracheal diverticulum
- B) Tracheoesophageal septum
- C) Tracheoesophageal fistula
- D) Laryngotracheal septum
- E) Tracheoesophageal fold

Lecture 1

5. the development of the tracheoesophageal septum occurs at week:

- A) 2
 B) 3
 C) 4
 D) 5
- E) 6

ANSWER : C

6. cleft lip results from failure of fusion of:

ANSWER : Maxillary prominences and nasal medial.

7. baby suffers from vomiting and regurgitation upon feeding:

ANSWER : Esophageal atresia and trachea-esophageal fistula.

8. wrong about tracheoesophageal fistula or atresia:

ANSWER : it causes pulmonary hypoplasia

Lecture 1

9. The lack of the development of cartilage in the bronchus causes:

ANSWER : bronchial stenosis

10. C-shaped trachea cartilage is derived from:

ANSWER : Splanchnic mesoderm

11. an infant with polyhydraminous that was born with a lot of amniotic fluid in his mouth, which of the following is mostly the cause:

ANSWER : proximal esophageal atresia with TEF

Lecture 2

12. Concerning the maturation of the lung, all the following statements are correct EXCEPT :

A) Growth of lung after birth is mainly due to increase in the number of the alveoli .

- B) In terminal sac period, respiration is impossible.
- C) At the end of the 6th month type I and type II alveolar cells are developed .
- D) The canalicular period lasts from 16th to 26th weeks .
- E) In pseudoglandular period, no respiratory bronchioles or alveoli is present.

ANSWER : B

13. Which of the following conditions are associated with oligohydramnios:

- A) Laryngeal atresia
- B) Tracheoesophageal fistula
- C) Congenital cyst of the lung
- D) Ectopic lung lobe
- E) Pulmonary hypoplasia

ANSWER : E

14. Oligohydramnios is associated with?A) Ectopic lung lobesB) Lung hypoplasiaC) Lung agenesisD) ARDS

ANSWER: B

15. Wrong about ARDS

A) Thyroxine is the most important stimulatorB) Causes collapsing of the alveoliC) Accounts for 2% of death in neonates

ANSWER : C

Lecture 2

16. A peremuture baby usually has difficulty breathing, However the respiratory system devolped enough for survival by:

- A) 17 weeks
- B) 24 weeks
- C) 28 week
- D) 36 weeks
- E) none of the above

ANSWER : C

17. The number of segments in the lung after the postnatal period is
A) 27
B) 15
C) 10
D) 23
E) 6

ANSWER: D

18. The definitive pleural cavity is formed by:A) Incorporation from pericardial pleuraB) Incorporation from peritoneal pleuraC) Somatopleuric mesenchymeD) Splanchnopleuric mesenchyme

ANSWER : C

19. Wrong about terminal sac period of lung maturation:

ANSWER : lack of respiratory membrane

Lecture 2

20. Which of the following is wrong:

ANSWER : the growth of alveoli after birth is mainly by increase in size

21. Wrong about surfactant:

ANSWER : Usually deficient in "term" babies



Lecture 1

ANSWER:

Q2. Sarah, a 28-year-old office worker, presents to her primary care physician with complaints of nasal congestion, sneezing, runny nose 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) Streptococcus pneumoniae

23. What is the usual duration of symptoms in uncomplicated common cold cases?

A) 1-2 daysB) 3-5 daysC) 7-10 days

D) 14-21 days

ANSWER : C

24. Which of the following interventions is most appropriate for managing common cold symptoms?

A) Antibiotic therapy

B) Antiviral medication

C) Supportive care and symptomatic relief

D) Intravenous fluids

ANSWER : C

25. In the absence of complications, what is the typical prognosis for the common cold?

A) Complete resolution within a few hours

B) Resolution within a week with possible lingering symptoms

C) Chronic and persistent symptoms requiring long-term treatment

D) Progression to severe respiratory distress

Lecture 1

26. What is a common complication associated with the common cold in children?

- A) Gastroenteritis
- B) Otitis media
- C) Urinary tract infection
- D) Meningitis

ANSWER: B

27. Which receptor does the major group of Human Rhinovirus use for entry?A) LDLRB) ICAM-1C) ACE2D) CD4

ANSWER: B

28. What is the primary replication site for Rhinoviruses in the respiratory tract?

- A) Alveoli
- B) Bronchi
- C) Surface epithelium of nasal mucosa
- D) Trachea

ANSWER : C

29. What is the primary cause of lower respiratory tract disease in healthy individuals associated with Rhinoviruses?

- A) Pneumonia
- B) Bronchiolitis
- C) Asthma exacerbations
- D) Croup
- E) Common cold

ANSWER : C

Lecture 1

30. Which statement is true regarding the relationship between chilling and the common cold according to experimental evidence?

- A) Chilling directly causes the common cold.
- B) Wearing wet clothes increases susceptibility to Rhinoviruses.
- C) Chilliness is a direct cause of Rhinovirus infection.
- D) Chilling is symptom of common cold.

ANSWER:D

31. What is the primary histopathologic change in the nasal mucosa during **Rhinovirus infection?**

- A) Necrosis
- B) Fibrosis
- C) Edema and mild cellular infiltration
- D) Hyperplasia

ANSWER: C

32. What is the primary mucosal change in the nasal and nasopharyngeal mucosa during Rhinovirus infection?

- A) Cyanosis
- B) Redness and swelling
- C) Pallor
- D) Petechiae

ANSWER: B

33. Which of the following is NOT is not a typical symptom of the common cold syndrome?

- A) Fatigue
- B) Runny nose
- C) Headache
- D) Shortness of breath
- E) Myalgia

ANSWER:D

Lecture 1

4.Mr. Johnson, a 45-year-old man, presents to his primary care physician with a complaint of a runny nose, sneezing, and a scratchy throat. he reports feeling fatigued and having a mild headache for the past two days. Mr. Johnson has no significant medical history, takes no regular medications, and denies any recent travel or exposure to sick contacts. Clinical Examination: slightly elevated body temperature of (37.5 °C). he exhibits mild erythematous pharynx and clear rhinorrhea. There is no evidence of respiratory distress, and lung auscultation is clear. The rest of the physical examination is unremarkable.

ANSWER :

• What is the most likely cause of Mr. Johnson's symptoms?

- A) Influenza virus
- B) Measles virus
- C) OC43 virus
- D) Streptococcus bacteria
- E) Hib

35. What is the common target for coronavirus infections in the human body?

- A) Liver cells
- B) Epithelial cells in the respiratory or gastrointestinal tract
- C) Nervous system cells
- D) Blood cells

ANSWER: B

36. Which symptoms are considered relatively more specific for COVID-19?

- A) Fever and cough
- B) Shortness of breath and fatigue
- C) Dysgeusia
- D) Muscle pain
- E) Headache

ANSWER : C

37. What is a potential complication of COVID-19?
A) Diarrhea
B) stroke
C) Bone fractures
D) Dysgeusia

Lecture 1

38. What is the most rapid and accessible diagnostic test used for COVID19?

A) Chest X-ray
B) Viral antigen test
C) Serological test
D) Blood culture
E) RT-PCR

ANSWER: B

39. What is the strongest risk factor for severe illness or death from COVID-19?

- A) Obesity
- B) Diabetes
- C) Increasing age
- D) Chronic kidney disease
- E) Heart disease

ANSWER : C

40. Emily, a 30-year-old teacher, visits her healthcare provider with complaints of a sore throat,

difficulty swallowing, and a low-grade fever. She reports these symptoms persisting for the past five days. Emily denies recent travel or exposure to sick contacts. She has no significant medical history and is not taking any medications. A few of her students have recently experienced similar symptoms. PE shows redness of the pharynx and no cervical lymphadenopathy enlargement. What is a common viral pathogen associated with Emily's symptoms?

A) Influenza virus

B) Group A Streptococcus (Streptococcus pyogenes)

C) Adenovirus

D) Cytomegalovirus (CMV)

ANSWER : C

41. In addition to pharyngitis, which of the following symptoms may be present in adenovirus infection?

A) Polydipsia

B) Jaundice

C) Pink eye

D) Polyuria

ANSWER : C

Lecture 1

42. Which diagnostic test can be employed to identify adenovirus as the causative agent of pharyngitis?

- A) Monospot test
- B) Throat culture
- C) Adenovirus polymerase chain reaction (PCR)
- D) Chest X-ray

ANSWER: C

43. What is the primary treatment approach for viral pharyngitis caused by adenovirus?

- A) Antibiotic therapy
- B) Antiviral medication
- C) Supportive care and symptomatic relief
- D) Tonsillectomy

ANSWER: C

44. What is the primary approach to serious RSV infections?

- A) Antiviral medication
- B) Vaccination
- C) Supportive care
- D) Antibiotics
- E) Monoclonal Ab

ANSWER : C Lec 2

Lecture 2

45. Alex, a 5-year-old child, is brought to the pediatrician by his parents with complaints of a hoarse voice and a bark-like cough for the past two days. The parents mention that Alex has not been eating well and seems more irritable than usual. There is no history of fever, and the child does not have any difficulty breathing. The parents report that Alex's symptoms started gradually. What is a common viral pathogen associated with Alex's symptoms?

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

ANSWER : C

46. Which of the following symptoms is characteristic of viral laryngitis caused by parainfluenza virus?

- A) High-grade fever
- B) Wheezing
- C) Bark-like cough
- D) Conjunctivitis

ANSWER : C

47. What term is commonly used to describe the condition when viral laryngitis leads to swelling of the larynx and upper trachea?

- A) Bronchiolitis
- B) Croup
- C) Pneumonia
- D) Pharyngitis

ANSWER: B

48. What is a potential complication of severe viral laryngitis in children, especially with parainfluenza virus type 1 or 2?

- A) Peritonsillar abscess
- B) polyurea
- C) Myocarditis
- D) Otitis media

ANSWER : D

Lecture 2

49. How is the diagnosis of parainfluenza virus-induced laryngitis confirmed?

- A) Blood culture
- B) Throat culture
- C) Viral PCR testing
- D) Chest X-ray

ANSWER : C

50. Which syndrome is associated with parainfluenza virus and shows a "steeple sign" on anterior neck x-ray?

- A) Bronchiolitis
- B) Pneumonia
- C) Croup
- D) Rhinitis
- E) Pharyngitis

ANSWER : C

51. In infants under 6 months, which type of parainfluenza virus is more likely to cause severe illness, such as pneumonia or bronchiolitis?

- A) Type 1
- B) Type 2
- C) Type 3
- D) Type 4
- E) Type 5

ANSWER : C

52. Emma, a 6-month-old infant, is brought to the emergency department by her parents due to coughing, difficulty breathing, and nasal congestion for the past two days. The parents mention that Emma had a mild cold-like illness a few days ago, but her symptoms have worsened, and she seems more fatigued. Emma was born full-term and has no known medical conditions. PE: shows bilateral chest wheezing, Chest X-ray shows bilateral chest infiltrate. What is the most common viral pathogen associated with Emma's symptoms?

ANSWER: C

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

Lecture 2

53. Which of the following symptoms is characteristic of bronchiolitis/pneumonia caused by RSV in infants?

- A) High-grade fever
- B) Wheezing and respiratory distress
- C) Sore throat and hoarseness
- D) Diarrhea and abdominal pain

ANSWER: B

54. In RSV bronchiolitis, what anatomical structure is primarily affected, leading to airway obstruction and respiratory distress?

- A) Alveoli
- B) Bronchi
- C) Bronchioles
- D) Trachea

ANSWER: C

55. Which age group is at the highest risk for severe RSV infection and complications such as bronchiolitis/pneumonia?

- A) Adolescents
- B) School-age children
- C) Infants and young children
- D) Adults

ANSWER: C

56. What supportive measure is often used in the management of RSV bronchiolitis/pneumonia to alleviate respiratory distress in infants?

- A) Antibiotics
- B) Inhaled corticosteroids
- C) Oxygen therapy and hydration
- D) Antiviral medications

ANSWER: C

Lecture 2

57. How is the diagnosis of RSV bronchiolitis/pneumonia confirmed in clinical practice?

- A) Blood culture
- B) Chest X-ray
- C) Throat culture
- D) Respiratory viral panel or RSV PCR

ANSWER : D

58. What is the leading cause of lower respiratory tract illness in infants and young children?

- A) coronavirus
- B) Parainfluenza virus
- C) Respiratory syncytial virus (RSV)
- D) Adenovirus

ANSWER : C

59. Where does RSV replication initially begin in immunocompetent hosts?
A) Lower respiratory tract
B) Lungs
C) nasopharynx epithelia
D) Gastrointestinal tract

ANSWER : C

60. What is the least likely to occur in RSV infections?

- A) Viremia
- B) Pneumonia
- C) Viral shedding
- D) Immune response

ANSWER: A

Lecture 1

61. which of the following is considered a narcotic drug acting on the cough center:

- A) Diamorphine
- B) Dextromethorphan
- C) Pholcodine
- D) Glaucine

ANSWER: A

62. A drug that is an expectorant nor enhances mucociliary action:

- A) Dextromethorphan.
- B) Bromhexine.
- C) Carbocisteine.

ANSWER: A

63. A drug that affects mucociliary function and is used in asthma:

- A) Ammonium chloride
- B) Bromhexine
- C) Beta 2 agonist

ANSWER : C

64. Antitussive Drugs include all the following except:

A) Drugs that may alter mucociliary factors.

B) Drugs acting on the efferent limb.

C) Drugs acting on the cough center.

D) Drugs acting on the afferent limb.

E) Drugs acting on the distal tubule.

ANSWER : E

Lecture 1

65. The Non-Specific Treatment of Cough is used in which cases?

- A) allergic or perennial non-allergic sinusitis.
- B) Gastroesophageal Reflux (GERD)
- C) When the cause is unknown.
- D) All the mentioned
- E) Bronchial Asthma.

ANSWER : C

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

67. Antitussive drugs are used for:

- A) Bronchial asthma
- B) Cystic fibrosis
- C) Nonproductive dry cough
- D) Pneumonia

ANSWER : C

68. Choose the mismatch:

A) Lemon oil - Increased lysosomal activity.B) Hydration - Decreased viscosity.

C) Carbocisteine - reduction of disulfide bonds.

ANSWER: A

Lecture 1

69. Drugs that supress cough maybe used for?

A) cough of bronchial asthma
B) dry cough that cannot be made productive
C) cough caused by suppurative lesions in the airway
D) cough in children
E) cystic fibrosis

ANSWER: B

70. All the following are considered as useful expectorants and mucolytic agents, EXCEPT?

- A) water
- B) syrups
- C) codeine
- D) ipecacuanha
- E) Mentho

ANSWER : C

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

72. Which of the following drugs is narcotic?A) GlaucineB) DiamorphineC) Pholcodine

Lecture 1

73. Wrong side effect:

ANSWER : Codeine >>> diarrhea

74. mismatch:

ANSWER : Lemon oil >>> Increased lysosomal activity.



Lecture 2+3

75. the most effective drugs used in tuberculosis:

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

ANSWER: B

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

77. all of the following about ethionamide is correct except:

- A) Blocks mycolic acid synthesis
- B) Given orally
- C) Good distribution
- D) Related to rifampin

ANSWER : D

78. All the following are considered as Primary or First Line Drugs for the Treatment of Tuberculosis except:

- A) Rifampin
- B) Streptomycin
- C) Ethambutol
- D) Ethionamide
- E) Streptomycin

ANSWER : D

Lecture 2+3

79. Most active drug in Tb treatment is:

A) Rifampin

B) Isoniazid

C) Streptomycin

ANSWER: B

80. Rifabutin is used instead of Rifampin because:

A) It is not affected by CYP P450.

B) It causes more side effects of protease inhibitors.

C) Rifampin decreases antiviral activity.

ANSWER : C

81. Isoniazid is used in combination to:

A) reduce resistanceB) have bactericidal effectsC) have higher efficacy

ANSWER: A

82. Regarding Isoniazid which is false?

A) Structurally related to Pyridoxine

B) It is considered as the Most active Anti tuberculosis Agents

- C) water soluble
- D) It is large molecule
- E) All the mentioned

ANSWER : D

Lecture 2+3

83. Which of the following drugs is used as a prophylaxis for Meningococcal meningitis?

- A) Isoniazid
- B) Ethambutol
- C) Rifampin
- D) Beclomethasone

ANSWER : C

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

85. All the following are considered as Second Line Drugs for treatment of tuberculosis except:

- A) Cycloserine
- B) Amikacin
- C) Ethionamide
- D) Capreomycin
- E) Rifampin

ANSWER: E

86. which statement is wrong about the mechanism of anti-TB agents?

- A) INH blocks mycolic acid synthesis and consequently cell wall synthesis
- B) Rifampin inhibits RNA synthesis
- C) Streptomycin blocks the ability of 30S ribosomal subunit to make protein (this choice is not from the slides, anyway it's useful to know it)
- D) Para-amino-salicylic-acid is a folate synthesis antagonist
- E) Although related to Rifampin, Rifabutin inhibits cell wall synthesis

ANSWER: E

Lecture 2+3

87. KatG, is important in the activation of the following anti-TB drug?

- A) Dapsone
- B) Isoniazid
- C) Rifampin
- D) Erythromycin
- E) Streptomycin

ANSWER: B

88. The agent that is metabolized by mycobacterial catalase-peroxidase (KatG) is:

- A) Isoniazid
- B) Rifampin
- C) Streptomycin

ANSWER: A

89. Ethionamide is related in its mechanism to:A) PASB) RifampinC) Isoniazid

ANSWER : C

90. A less potent Anti-TB inducer of CYP450 and is used with HIV patients using protease inhibitor therapy:

- A) Rifabutin
- B) Rifampin
- C) Capreomycin

ANSWER: A

Lecture 2+3

91. A less potent Anti-TB inducer of CYP450 and is used with HIV patients using PI therapy:

ANSWER : Rifabutin

92. wrong about streptomycin:

ANSWER : First effective anti TB.

93. Most active, primary anti-TB agent?

ANSWER: Isoniazid

94. Main side effect of streptomycine is A) Headache B) Nephrotoxicity

Lecture 2+3

95. Rifabutine work byA) Inhibit RNA synthesisB) Induce protein synthesis

ANSWER: A

96. Tuberculosis treatmentA) May last for 2 yearsB) Ends in 2 weeks

ANSWER: A



Lecture 4

97. all of the following are anti influenza except:

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

ANSWER : D

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

99. False about Viruses:A) Can't be Classified by morphologyB) virus must enter the host cellC) some virus has envelop

ANSWER: A

100. DNA Virus :

A) Arborviruses (yellow fever)B) papillomavirus (wart)C) Picornaviruses (meningitis, colds)

Lecture 4

101. regarding acyclovir which is false?

- A) Efficient agonist herpes virus.
- B) Side effect ; include nausea, vomiting and skin rashes.
- C) Must be given in cases of varicella = chicken pox.
- D) Is considered as wide spectrum antiviral agent.
- E) None of the above.

ANSWER : C

102. False about zidovudine :A) inhibit viral DNA productionB) protease inhibitorsC) expensive

ANSWER: B

103. False about viruses:

ANSWER : All viruses possess an envelope

104. What makes the acyclovir specific?

ANSWER : Its conversion to MP derivative by viral thymidine kinase

Lecture 4

105. DNA virus:

ANSWER : Human Papillomavirus

106. True regarding virus:

ANSWER : must enter host cell

107. acyclovir specificity due to :

ANSWER : MP done by viral thymidine kinase

Lecture 5+6

108. All of the following provide quick asthma relief except

- A) Inhaled anticholinergics
- B) Systemic corticosteroids
- C) Inhaled short acting beta 2 agonists
- D) Oral methyxanthines

ANSWER : D

109. Quick-relief medications for Asthma include all the following except:

- A) Inhaled Anticholinergics
- B) Topical (inhaled) Corticosteroids
- C) Inhaled Short Acting Beta-2 Agonists
- D) Systemic Corticosteroids

ANSWER: B

110. Regarding Asthma which is false?
A) Therapy must be individualized.
B) The treatment course is unpredictable.
C) Asthma is an acute condition.
D) The goal of therapy is normal function.
E) The Condition is heterogeneous.

ANSWER : C

111. choose the correct statement regarding asthma:A) The course of treatment in predictableB) The goal of therapy is normal function

Lecture 5+6

112. All the following are Goals of Therapy in Asthma except:

- A) No limitation of activities.
- B) No, or infrequent, acute episodes.
- C) Stabilize the condition using beta-agonist inhaler therapy.
- D) No ED visits or missed days in school or work.
- E) Minimal symptoms even during sleep.

ANSWER : C

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

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

ANSWER: A

114. What your aim in treating asthma

A) Always use beta agonistsB) Rarely use beta agonists

ANSWER: B

115. Choose the correct answerA) Allergens do not affect IgE productionB) Allergens increase IgE production

Lecture 5+6

116. Which is a symptom of asthma

- A) Vasoconstrstion
- B) Vasodilation

ANSWER: B

117. The following is among asthma triggersA) AgeB) Ciggeret

ANSWER: B

118. Theophylline functionA) Antimucouse secretionsB) Bronchocostriction induction

ANSWER: A

119. Topical corticosteroids areA) Long term medicationB) Short term medication

ANSWER:A

Pbl

Lecture 1+2

120. A case about a patient with covid who developed ARDS, which of the is not expected to be in this patient:

A) the PF ratio is 190

B) expiratory wheeze with prolonged expiratory phase

C) the patient has Adult respiratory distress syndrome

ANSWER: B

121. A 5-year-old child present with high grade fever for 5 days, shortness of breath and cough, physical examination revealed decreased air entry, bronchial breathing sound and dullness percussion on the right side of his chest, what's the most appropriate treatment of his condition?

A) Inhaled corticosteroid

- B) Intravenous corticosteroid
- C) Intravenous ceftriaxone
- D) Inhaled gentamycin
- E) Inhaled salbutamol

ANSWER: C

ANSWER: C

122. How to treat severe ARDS?

ANSWER : Steroids

123. 2 years child presents to the pediatric clinic with dry barking cough and loud breathing sound during inspiration. This was associated with low grade fever and nasal discharge. On physical examination, the child had inspiratory stridor, hoarseness of voice, and signs of respiratory distress. According to this clinical profile, which part of the respiratory system is likely to be affected by this pathology?

- A) Terminal bronchioles
- B) Lung parenchyma
- C) Larynx and upper trachea
- D) Lung interstitial tissue
- E) Paranasal sinuses

Pbl

Lecture 1+2

124. Barking cough with steeple sign?

ANSWER : Croup

125. One of the following is causing acute stridor in children :

- A) Bronchiolitis
- B) Allergic rhinitis
- C) Bacterial pneumonitis
- D) Bacterial Tracheitis
- E) Heart failure

ANSWER:D

126. A 4-year-old child with a harsh, honking cough, inspiratory stridor, and increased respiratory effort presents to the clinic. The child's parent reports a recent upper respiratory infection. What is the most likely cause?

- A) Laryngomalacia
- B) Tracheomalacia
- C) Viral croup
- D) Bacterial tracheitis
- E) Epiglottitis

ANSWER : C

127. Which viral infection is commonly associated with croup?

- A) Human metapneumovirus
- B) Parainfluenza virus
- C) Adenovirus
- D) Influenza
- E) Respiratory syncytial virus (RSV)

Physiology

Lecture 1+2

128. Comparing the top of the erect lung to the bottom: all are true EXCEPT

- A) Water vapour pressure remains constant.
- B) Compliance is more at base than at the apex.
- C) Alveolar PCO2 at apex is lower than at the base
- D) Venous return derived from apical regions contain higher PO2 than from basal regions
- E) More V/Q ratio at the base than at the apex

ANSWER: E

129. In bronchial asthma all the following are decreased EXCEPT

A) Airway resistance

B) FEV1.0

C) FEV1.0/FVC

D) Diameter of airways

E) Peak expiratory flow rate

ANSWER:A

130. The work of breathing is:

A) Inversely proportional to lung compliance B) Remain constant during exercise C) Not affected by airway resistance D) Is less in pulmonary fibrosis E) Is less in emphysema

ANSWER:A

131. During mild exercise:

- A) PaO2 declines
- B) PaCO2 increases
- C) O2 consumption reaches its maximum (VO2max)
- D) Whole body arteriovenous oxygen concentration difference increases.
- E) The time an RBC stays in the pulmonary capillary remains the same.

ANSWER:D
Lecture 1+2

132. Alveolar oxygen tension (PAO2) is influenced by all the following EXCEPT:

- A) Atmospheric pressure
- B) Fraction of oxygen in inspired air (FiO2)
- C) Hemoglobin concentration in the blood
- D) Oxygen consumption
- E) V/Q ratio

ANSWER : C

133. In standing normal individual at rest, compared to skeletal muscle capillaries, pulmonary capillaries have:

- A) continuous blood flow in the entire capillary bed (base and apex)
- B) more capillary blood oncotic pressure
- C) less capillary blood oncotic pressure
- D) less capillary hydrostatic pressure
- E) more blood volume

ANSWER : D

134. A patient with restrictive lung disease will have a relatively normal
A) FEV1
B) FVC
C) FEV1/FVC
D) V/Q ratio
E) pulmonary vascular resistance

ANSWER : C

135. Regarding pulmonary vascular resistance:

- A) is low at high lung volumes
- B) is low at low lung volumes
- C) if increased, can cause right heart failure
- D) is measured through routine pulmonary function tests
- E) is more than systemic vascular resistance

ANSWER :C

Lecture 1+2

136. Which of the following sets of differences best describe the hemodynamics of the pulmonary circulation when compared with systemic circulation?

	Flow	Resistance	Arterial P
a.	Same	Lower	Lower
b.	Same	Higher	Lower
c.	Higher	Same	Higher
d.	Lower	Lower	Lower
e.	Higher	Higher	Higher

137. Compared with the systemic circulation, pulmonary circulation has all the following EXCEPT: blood flow.....,vascular resistance.....,arteriolar compliance
A) Blood flow: Higher, Vascular resistance: higher, Arteriolar compliance: higher
B) Blood flow: Lower, Vascular resistance: lower, Arteriolar compliance: lower
C) Blood flow: Same, Vascular resistance: lower, Arteriolar compliance: higher
D) Blood flow: Same, Vascular resistance: higher, Arteriolar compliance: lower
E) Blood flow: Same, Vascular resistance: higher, Arteriolar compliance: lower

ANSWER : C

138. A 20-year-old male college student participates in a pulmonary study in his physiology lab.He is healthy and in good physical shape. He is asked to run on a treadmill for 20 minutes at a moderate pace, during which time his arterial PCO2 is measured. What is his predicted arterial PCO2 (in mm Hg) ?

- A) 20
- B) 60
- C) 80
- D) 40

ANSWER : D

139. Which of the following sets of differences best describe the hemodynamics of the pulmonary circulation when compared with systemic circulation (in skeletal muscles)?

A) A B) B C) C D) D E) E ANSWER : B

	Blood π c	interstitial π c	Vascular Resistance	Pc
A.	Same	Higher	Higher	Lower
B.	Same	Higher	Lower	Lower
C.	Higher	Same	Same	Higher
D.	Lower	Lower	Lower	Lower
E.	Higher	Higher	Higher	Higher

Lecture 1+2

140. Hypoventilation causes one of the following changes in arterial blood gases:

A) Increase in arterial PO2, increase in arterial PCO2, and decrease pH

B) Increase in arterial PO2, decrease in arterial PCO2, and increase pH

C) Decrease in arterial PO2, decrease in arterial PCO2, and increase pH

D) Increase arterial PO2, no change in arterial PCO2, and increase pH

E) Decrease in arterial PO2, increase in arterial PCO2, and decrease pH

ANSWER: E

141. The following table of normal values (at sea level) contains one error. This error ears inwhich line

appears mwnich me.	PO2	PCO2
A) pulmonary venous blood	100	40
B) alveolar air with high V/Q ratio	>100	<40
C) arterial blood during exercise	< 90	>40
D) pulmonary arterial blood	40	45
E) mixed expired air	>100	< 40

ANSWER : C

142. Pulmonary edema due to CHF (congestive heart failure) is due to:

- A) Increased pulmonary capillary hydrostatic pressure
- B) Increased pulmonary colloidal osmotic pressure
- C) Decreased pulmonary interstitial hydrostatic pressure
- D) Decreased pulmonary interstitial osmotic pressure
- E) Increased pulmonary interstitial hydrostatic pressure

ANSWER: A

143. hyperventilation can result from:

- A) increase alveolar Pco2
- B) increase alveolar Po2
- C) decrease arterial Pco2 below 30 mmHg
- D) direct stimulation of central chemosensitive receptors due to increase PH
- E) decline of arterial Po2 from 100 mmHg to 70 mmHg

ANSWER:A

Lecture 1+2

144. The maximum expiratory flow- volume curves in the diagram above were obtained from a healthy individual (curve A) and a 57 year old man who complains of shortness of breath (curveB).Which of the following disorders does the man most likely have?

A) Asbestosis

- B) Emphysema
- C) Fibrosis
- D) Acute asthmatic attack
- E) ARDS



145. The work of breathing is:

- A) More in pulmonary fibrosis.
- B) Directly proportional to lung compliance.
- C) Is less in emphysema.
- D) Remain constant during exercise.
- E) Not affected by airway resistance

ANSWER: A

146. The work of breathing is:

A) directly proportional to lung compliance.B) Remain constant during exercise.C) is directly proportional to the airway resistance.D) Is less in pulmonary fibrosis.E) Is less in IRDS.

ANSWER : C

147. Increase ventilation during exercise, which of the following changes occur? "A=stands for alveolar"

A) increase PAO2, increase PAH2O, increase arterial PCO2.
B) increase PAO2, unchanged PAH2O, increase arterial PCO2.
C) unchanged PAO2, unchanged PAH2O, unchanged arterial PCO2.
D) decrease PAO2, unchanged PAH2O, decrease arterial PCO2.
E) decrease PAO2, unchanged PAH2O, increase arterial PCO2

ANSWER : C

Lecture 3+4

148. The greatest increase in physiological dead space would be expected with:

- A) Pulmonary embolism
- B) Atelectasis (or: collapse of one lung)
- C) Pneumothorax
- D) Bronchoconstriction
- E) Decreased V/Q ratio

ANSWER: A

149. In the adult, one of the following is NOT different between the systemic and pulmonary circulation?

- A) Volume of blood flowing through it
- B) Vascular resistance
- C) Capillary hydrostatic pressure
- D) Ps (systolic arterial pressure)
- E) Pulse pressure

ANSWER : A

150. For a normal Hb-O2 dissociation curve, the most correct relationship is:

A) PaO2 40 mmHg, SaO2 40%
B) PaO2 26 mmHg, SaO2 26%
C) PaO2 60 mmHg SaO2 90%
D) PaO2 120 mmHg, SaO2 120%
E) PaO2 70 mmHg, SaO2 40%

ANSWER : C

151. If blood Hb is 10 g/dL, PaO2 is 100 mm Hg, and hemoglobin is 50% saturated with oxygen, the volume of oxygen contained in 100 ml of blood is approximately: A) 5.6 ml

- A) 5.0 III
- B) 6.7 ml
- C) 9.5 ml
- D) 19.5 ml
- E) Cannot be calculated from the above data

ANSWER: B

Lecture 3+4

152. Arterial PO2 is reduced in

- A) Pulmonary edema
- B) Histotoxic hypoxia
- C) Anemia
- D) CO poisoning
- E) Descending to Dead Sea area

ANSWER: A

153. In normal person at rest, which of the following decreases arterial PO2

- A) Polycythemia (high RBC count)
- B) CO poisoning
- C) Breathing 50% oxygen
- D) Anemia
- E) Ascent to an altitude of 3500 m

ANSWER: E

154. Which of these statements is False regarding pulmonary vascular resistance during exercise?

A) pulmonary arterial pressure increase slightly during exercise

B) pulmonary vascular resistance decreases during exercise.

C) Pulmonary vascular resistance is only one seventh of systemic vascular resistance

D) Increase of lung volume results in increase of resistance in extra alveolar vessels

E) total vascular resistance is increased in emphysema and in pulmonary fibrosis

ANSWER: D

155. 7-If 1 g of hemoglobin has an oxygen capacity of 1.34 mL of oxygen, what is the oxygen content of blood containing 10 g of hemoglobin when the blood PO2=40 mmHg?

- A) $\approx 6 \text{ mL/dL}$
- B) $\approx 8 \text{ mL/dL}$
- C) ≈ 10 mL/dL
- **D**) ≈ 12 mL/dL

E) Cannot be calculated from the information provided

ANSWER : C

Lecture 3+4

156. Which of the following decreases oxygen content but does not alter PaO2 or percentage saturation of hemoglobin?

- A) Ascent to an altitude of 3500 m
- B) Polycythemia (high RBC count)
- C) Breathing 50% oxygen
- D) Anemia
- E) Development of a large right-to-left shunt

ANSWER:D

157. Decreased arterial PO2 is a consequence of all the following EXCEPT :

A) breathing at high altitude. **B) IRDS** C) pulmonary edema D) COPD E) CO poisoning

ANSWER: E

158. If Hb concentration is 7.5 g/dl, and the arterial blood 02 sat is 98%, what would be the concentration of arterial O2?

A) Arterial [02] cannot be calculated.

B) The dissolved O2 becomes more than the Hb-bound 02.

C) There is about 15 ml of oxygen per 100 ml of arterial blood.

D) Arterial [02] equals 10 ml/dl.

E) When [Hb] equal 7.5 g/dl, the automatically, 02 Sat never exceeds 50%.

ANSWER:D

159. A patient with anemia has which of the following? A) A normal arterial blood O2 content B) Arterial PO2 of 99 mmHG C) A decreased venous blood PO2

D) Hyperventilation

E) Cyanosis

ANSWER: C

Lecture 5+6+7

160. Peripheral chemoreceptors:

- A) Respond only to increased/decreased H+
- B) Respond only to low O2.
- C) Stimulated by carbon monoxide
- D) Having the lowest arterio-venous O2 difference in our body
- E) Aortic bodies innervated by glossopharyngeal nerve

ANSWER : D

161. Which of the following would shift HB-O2 to the left?

- A) Exercise
- B) HbF
- C) Increase alveolar PCO2
- D) Whenever P50 increases.
- E) Hypoventilation

ANSWER: B

162. At high altitude the following changes take place EXCEPT:

- A) Increase alveolar PCO2
- B) Increase ventilation
- C) Increase respiratory rate
- D) Increase in O2 carrying capacity of blood
- E) Decrease alveolar PO2

ANSWER: A

163. Which of the following is INCORRECT regarding the

above oxyhemoglobin curve?

A) higher P50 than normal means that the O2 binds less tightly to Hb.

- B) HbF is normally shifted to the left
- C) An increase in PCO2 causes a right shift.
- D) An increase in blood pH increases P50.
- E) An increase in temperature shifts the O2 uptake curve to the right.

ANSWER: D



Lecture 5+6+7

164. In diving, divers first hyperventilate before they go into water. This hyperventilationallows one to hold one's breath for a longer period of time, because hyperventilation:

- A) increases the oxygen reserve of systemic arterial blood
- B) decreases the PCO2 of systemic arterial blood
- C) decreases the pH of systemic arterial blood
- D) increases brain blood flow
- E) make alveolar air full of O2 which divers can use while diving

ANSWER: B

165. Regarding carbon monoxide poisoning, one of the following is TRUE:

- A) Increases firing rate from the peripheral chemoreceptors to the respiratory center
- B) decreases arterial O2 concentration
- C) Decreases arterial PO2
- D) can be self-limited disease
- E) as long as PCO arterial is below 1 mmHg, we should not worry.

ANSWER: B

166. The arterio-venous PO2 difference in the lowest in which of the following

organs/tissues (at rest) ?

- A) kidneys
- B) heart
- C) bronchial circulation
- D) brain
- E) skeletal muscles

ANSWER: A

167. The below is normal oxyhemoglobin dissociation curve; an increase in P50 is seen in one of the following conditions:

- A) reverse Bohr's effect
- B) decreased local temperature
- C) physical exercise
- D) increase plasma pH
- E) fetal hemoglobin
- ANSWER : C



Lecture 5+6+7

168. Which of the following conditions would result in the highest oxygen content per milimeter of blood?

A) Hemoglobin concentration= 5 PaO2=90 mmHg

B) Hemoglobin concentration= 5 PaO2=500 mmHg

C) Hemoglobin concentration=3 PaO2=90 mmHg

D) Hemoglobin concentration=10 PaO2=60 mmHg

E) Hemoglobin concentration=16 PaO2=28 mmHg

ANSWER : D

169. Which of the following statements about the transport of O2 & CO2 by the blood istrue:

- A) Most CO2 is transported in the dissolved form
- B) The % saturation of hemoglobin with O2 will increase if the arterial pCO2 is increased
- C) A decrease in the % saturation of hemoglobin with O2 increases CO2 transport
- D) In anemia both arterial pO2 and O2 content are decreased
- E) The reduced arterial pO2 in an individual living at high altitude is due to impairment in O2

ANSWER : C

170. in an individual the ventilation didn't increase when the inspired pCO2 was increased, but decreased during increased inspired pO2.

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

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

ANSWER: A

171. The oxygen dissociation curve of normal adult hemoglobin is most effectively shifted to the right by:

- A) Mixing with fetal hemoglobin
- B) Increased 2,3-bisphosphoglycerate (BPG)
- C) Cooperative binding of oxygen
- D) Increased PH
- E) Decreased CO2

ANSWER: B

Lecture 5+6+7

172. Breathing :

- A) Is not dependent on nervous impulses
- B) Is a chemical process by definition
- C) Depends on the ability of cells to oxidize materials.
- D) Is best described as mechanical process
- E) Cannot be voluntary controlled

ANSWER : D

173. In the chloride shift, chloride ions exchange place with :

- A) Bicarbonate ion
- B) Sodium ions
- C) Potassium ions
- D) hydrogen ions
- E) Hemoglobin

ANSWER: A

174. Peripheral chemoreceptors:

- A) Respond only to increased/decreased H+
- B) Respond only to low O2.
- C) Stimulated by carbon monoxide
- D) Having the lowest arterio-venous O2 difference in our body
- E) Aortic bodies innervated by glossopharyngeal nerve

ANSWER : D

175. Which of the following shifts the oxyhemoglobin curve to the left?

- A) Increased temperature
- B) Exercise
- C) Hyperventilation
- D) Metabolic acidosis

ANSWER : C

Lecture 1

176. Choose the correct statement regarding the pathophysiology of asthma:

A) the early stage is inflammatory in nature

B) the late stage is characterized by the activation of cell mediated immunity

C) IL-13 stimulates mucus secretions and IgE production

ANSWER : C

177. Wrong about bronchiectasis

ANSWER : diagnosis is only through biopsy

178. Regarding bronchiectasis, one of the following statements is CORRECT:
A) It's a primary inherited pulmonary disease
B) considered as reversible obstructive pulmonary disease
C) Alveolar sacs are the most involved part
D) Heals with complete resolution and no fibrosis
E) patient present with cough and purulent sputum

ANSWER : E

179. Regarding the pathogenesis of atopic asthma one of the following statements is correct:

A) the initial response upon first exposure is associated with type-1 helper lymphocyte activation
B) IL-4 & IL-5 are secreted from alveolar macrophages during the early phase response
C) phago-lysosomal maturation arrest is essential in the pathogenesis during early phase
D) Eotaxin is a potent chemoatractant and activator of eosinophils in late phase
E) early phase is triggered by antigen induced crosslinking of IgG bound to receptor on mast cells

ANSWER : D

Lecture 1

180. Which of the following diseases affect the lower lung lobe?

- A) Distal acinar emphysema
- B) Silicosis
- C) Bronchiectasis
- D) Coal worker pneumoconiosis
- E) Hypersensitivity pneumonitis

ANSWER : C

181. Cystic fibrosis causes:

ANSWER : bronchiectasis

182. Not a cause of bronchiectasis :

ANSWER : acute pneumonia

183. Mismatch about asthma:

ANSWER : drug (aspirin) induced asthma is caused by inhibition of lipoxygenase

Lecture 1

184. Which is wrong about bronchiectasis :

ANSWER : result in reversible dilation .

185. Asthma is as irreversable obstructive airway disease.A) TrueB) False

ANSWER: B

186. correct statement.

A) The destruction of airways is characteristic in asthmaB) asthma is a reversible airway diseaseC) asthma is a restrictive lung disease

ANSWER: B

187. Choose the correct statement.

A) the initial airway response after exposure to the Inhaled allergens for first time starts with the recognition of the antigen by antigen presenting cells on surface mucosaB) the initial airway response after exposure to the Inhaled allergens for first time starts with bronchoconstriction and wheezes

C) the initial airway response after exposure to the Inhaled allergens for first time starts with the degranulation of the mast cells and release of preformed mediators

ANSWER: A

Lecture 1

188. Choose the correct statement.

A) upon re-exposure to the same antigen an inflammatory phase reaction follows B) upon re-exposure to the same antigen IgE production and eosinophil activation and recruitment follows

C) upon re-exposure to the same antigen degranulation of the mast cells and release of preformed mediators follows

ANSWER : C

189. Choose the correct statement.

A) the first wave of reaction upon re-exposure is dominated by bronchoconstriction, increased mucus production, and vasodilation.B) the first wave of reaction upon re-exposure is dominated by airway remodeling C) the first wave of reaction upon re-exposure is dominated by release of inflammatory mediators

ANSWER: A

190. Regarding bronchiectasis, one of the following statements is correct:

A) primary processB) irreversibleC) restrictive diseaseD) affects the acini

ANSWER: B

Lecture 2

191. Which of the following is true regarding hypersensitivity pneumonitis:

- A) it mainly affects the bronchi.
- B) affects the lower lopes mostly.
- C) We need radiology and biopsy for the diagnosis of the acute form of the disease.
- D) Negative skin test

ANSWER : D

192. Which of the following is true regarding sarcoidosis:

- A) nodes are matted and painful.
- B) uveitis is the most common in eye involvement
- C) non caseating granulomas are common in erythema nodosum.

ANSWER: B

193. True about sarcoidosis

A) Higher prevalence in smokers

B) Mainly occupational disease

C) In liver it manifests as granulomas surrounding central veins

D) In more than 50%, it causes granuloma in spleen

ANSWER : D

194. What's specific for sarcoidosis ?A) Non-caseating necrosisB) Schaumann bodiesC) Asteroid bodiesD) none of the above

ANSWER: D

Lecture 2

195. Wrong about sarcoidosis

ANSWER : subcutaneous nodules indicate acute sarcoidosis

196. Wrong restrictive lung disease

ANSWER : hypersensitivity pneumonitis is caused by type I hypersensitivity

197. Regarding sarcoidosis one of the following is CORRECT:
A) hypercalcemia in sarcoidosis isn't related to bone destruction
B) the presence of non-caseating granuloma in lung biopsy is diagnostic
C) Asteroid bodies are laminated concretions that contain calcium
D) The non-caseating granulomas are centered within the alveolar spaces
E) Corneal opacification are the most common presentation of eye involvement

ANSWER: A

198. Sarcoidosis correct:

ANSWER : hypercalcemia

Lecture 3

199. Choose the correct pair of the disease with its most common symptom:

A) Idiopathic Pulmonary Fibrosis -non progressive dyspnea

B) asthma - chronic progressive dyspnea

- C) emphysema hyperventilation
- D) bronchiectasis- dry cough

ANSWER : C

200. Intraalveolar fibrosis with patchy air space consolidation

- A) Cryptogenic Organizing pneumonia
- B) Carcinoid syndrome
- C) Nonspecific interstitial pneumonia

ANSWER: A

201. Temporal heterogeneity is found in

ANSWER : idiopathic pulmonary fibrosis

202. Regarding cobble stone appearance of the pleural surface which statement is correct?

A) Associated with usual interstitial pneumonia patern (UIP) of fibrosis

B) Characteristic of pleural involvement by malignant mesothelioma

C) Happens due to lung hyperinflation and air trapping

D) Associated with miliary pulmonary tuberculosis

E) Characteristic of non-specific interstitial pneumonia (NISP)

ANSWER: A

Lecture 3

203. Which of the following is wrong about IPF:

ANSWER : Patients have productive cough

204. wrong about Hypersensitivity pneumonitis:

ANSWER : obstructive disease

205. wrong about cryptogenic organizing pneumonia:

ANSWER : only treatment is lung transplant

206. Which is wrong:

ANSWER : idiopathic pulmonary fibrosis appears under the microscope as desquamated

Lecture 4

207. Choose the true statement:

A) silica cannot be fully digested by macrophages

B) amorphous Silica is the most toxic and fibrogenic form of silica

C) asbestosis begins in the upper lobes

ANSWER: A

208. True about coal dust pneumoconiosis:A) Coal workers may develop emphysema independent of smokingB) increased risk of lung carcinoma in coal miners

ANSWER: A

209. Choose the true sentence

A) hyalinized collagen fibers are found in silicosisB) asbestos bodies are golden brown rounded structuresC) pleural plaques contain Ca++ and iron

ANSWER: A

210. True sentence that

ANSWER : coal worker's pneumoconiosis is found in the upper lobes of the lung, so are silicosis nodules

Lecture 4

211. Wrong about fibrosing lung diseases

ANSWER : PMF is specific to coal-worker pneumoconiosis

212. Wrong about coal-worker

ANSWER : a definitive correlation with lung cancers is proven

213. Not a lung lesion caused by asbestosis

ANSWER : visceral pleural plaques

214. Which of the following is associated with slowly progressive restric ve lung disease showing whorls of concentrically arranged hyalinized collagen bundles surrounding amorphous center?

- A) Coal dust
- B) Tobacco smoke
- C) Mushroom
- D) Crystalline silica
- E) Asbestos

ANSWER : D

Lecture 4

215. Regarding pneumoconiosis which is correct?

- A) The most dangerous mineral dust particle range in size between 5-10 µm
- B) Tobacco smoking worsens the effect of all inhaled minerals dust except for asbestosis
- C) Simple coal worker pneumoconiosis is associated with centre-acinar emphysema
- D) The pure form of quartz is less fibro-genic and toxic than mixed form
- E) Asbestosis is associated with increased risk of primary tuberculosis

ANSWER : C

216. Inhalation of coal without fibrosis:

ANSWER : anthracosis

217. Which is wrong about silicosis :

ANSWER : amorphous form is more toxic than crystalline form .

218. Choose the wrong statement:

ANSWER : asbestos and smoking more chance of mesothelioma

Lecture 4

219. Choose the wrong statement:

ANSWER : asbestos and smoking more chance of mesothelioma

220. All are diseases of lower lobes except:

ANSWER : silicosis

221. Choose the wrong statement:

ANSWER : Asbestos bodies brown in pleural plaques

222. Both pleural and peritoneal mesothelioma are caused by asbestosis.

Lecture 4

223. coal workers may develop?

A) chronic bronchitis

B) pneumoconiosis

C) emphysema

D) all of the above

ANSWER: D

224. extensive fibrosis and compromised lung function is seen in:

A) Complicated CWP

B) Asymptomatic anthracosis

C)Simple coal worker's pneumoconiosis

ANSWER: A

225. the most common site of involvement in coal workers pneumoconiosis are:A) middle lung lobesB) lower lung lobesC) upper lung lobesD) near the pleura

ANSWER : C

226. Exposure to coal dust increases the risk of :A) paraseptal emphysemaB) irregular emphysemaC) panacinar emphysemaD) centriacinar emphysema

ANSWER:D

Lecture 4

227. When the quartz is mixed with other minerals--> the fibrogenic effect of is reduced.

A) True

B) False

ANSWER:A

228. silicotic nodules are seen mostly in:

A) upper zones of the lung B) near the trachea and main bronchi

- C) lower zones of the lung
- D) pleaural surfaces

ANSWER:A

229. Regarding asbestos bodies, one of the following statements is correct:

- A) translucent
- B) pleural lesion
- C) zinc containing coat

ANSWER:A

230. the lower lung lobes are affected predominently in:

- A) silicosis
- B) asbestosis
- C) complicated coal worker's pneumoconiosis
- D) simple coal worker's pneumoconiosis

ANSWER: B

Lecture 4

231. the presence of pigmented macrophages in a "bronchiolocentric" distribution is seen in:
A) CENTRIACINAR EMPHYSEMA
B) RESPIRATORY BRONCHIOLITIS - ASSOCIATED INTERSTITIAL LUNG DISEASE
C) chronic bronchitis
D) Desquamative interstitial pneumonia (DIP)

ANSWER: B



Lecture 5

232. Choose the true statement:

A) large emboli are associated usually with alveolar hemorrhageB) most thromboemboli are clinically silent

ANSWER: B

233. Regarding goodpasture syndrome, which of the following is correct:A) might result in rapidly progressive glomerulonephritisB) affects mainly the lungs and the liver

ANSWER: A

234. Which of the following is true about pulmonary embolism

A) The more peripheral the embolic occlusion the lower the risk for infarction

B) %40 of them are silent

C) Consequences are only determined by the size of embolus

D) Small emboli cause alveolar hemorrhage

ANSWER : D

235 Which of the following is true about Goodpasture syndrome

- A) Autoimmune disease affect the lungs only
- B) IgG granular deposition in the lung are diagnostic
- C) Results in necrotizing hemorrhage interstitial pneumonitis
- D) Predominance in females

ANSWER : C

Lecture 5

236. Regarding pulmonary embolism, which statement is correct:

- A) Large saddle PE are associated with no histologic alteration
- B) Most PE arise from thrombi in the heart ventricle
- C) Pulmonary infracts are usually in the upper lobe
- D) The most common symptom of PE is progressive dyspnea
- E) Bone marrow embolism is common in IV drug abusers

ANSWER: A

237. Which of the following is wrong about goodpasture disease:

ANSWER : Only treatment is renal transplant (Or lung transplant)

238. Which is wrong:

ANSWER : 30% of the cases of pulmonary embolism end in pulmonary infarction

239. which is wrong :

ANSWER : idiopathic pulmonary hemosiderosis is associated with circulating antibodies against basement membrane collagen

Lecture 5

240. mosr of Pulmonary Emboli arise from thrombi within the:

A) deep viens of legB) pulmonary viensC) pulmonary arteriesD) heart cavity

ANSWER: A

241. Pulmonary hypertension is defined as pressures of 10 mm Hg or more at restA) True

B) False

ANSWER: B

242. a tuft of capillary formations that spans the lumens of dilated thin-walled, small arteries is called

A) internal thickeningB) medial hypertrophyC) hyaline arteriolosclerosisD) plexiform lesion

ANSWER: D

243. one of the following diseases is associated with kidney injury are caused by circulating autoantibodies against certain domains of type IV collagen:

- A) Goodpasture syndrome
- B) Idiopathic pulmonary hemosiderosis
- C) Granulomatosis with polyangiitis
- D) pulmonary hypertension
- E) pulmonary embolism

ANSWER: A

Lecture 6

244. Mass that contains large cells, with large nuclei and prominent nucleoli, and show noglandular or squamous differentiation, what is the diagnosis ?

- A) Squamous cell carcinomaB) Large cell carcinoma
- C) Carcinoid
- D) Small cell carcinoma

ANSWER: B

245. True about adenocarcinoma

- A) Form large masses
- B) Centrally located
- C) It has a wide range of metastasis in a short time

ANSWER : C

246. True about lung tumors

- A) They have good prognoses
- B) Adenocarcinoma is the most common in smokers
- C) women are more susceptible to carcinogens in tobacco than men

ANSWER : C

247. True sentence that

ANSWER : Adenocarcinoma is the most common lung tumor

Lecture 6

248. Case about man with chronic cough and weight loss, clopping of fingers, X-Ray shows left sub-pleural proliferation, lung biopsy shows glandular formation, TTF-1 immune stain is positive, what is your diagnosis?

- A) Adenocarcinoma
- B) Squamous cell carcinoma
- C) Small cell carcinoma
- D) Large cell neuroendocrine carcinoma
- E) Sarcomatous mesothelioma

ANSWER: A

249. A 60 years old smoker, with a central lung tumor, it's most likely to be:

ANSWER : Squamous cell carcinoma

250. Which of the following is correct about small cell carcinoma:

ANSWER : No keratin histologically

251. Which is wrong:

ANSWER : peripheral involvement of the lung in Squamous cell carcinoma

Lecture 6

252. Minimal invasive adenocarcinoma:

ANSWER : less than 3 cm tumor

253. Non smoker, thromosis, peripheral primary cancer:

ANSWER : adenocarcinoma



Lecture 7

254. 69 year old gentleman, presented with cough and a 7 kg weight loss over the past 3 months and enlarged mass in chest. Biopsy shows a combination of cuboidal and spindled cells.Labs shows he is TTF-1 negative, does not express neuroendocrine markers , also no keratin pearls are seen. which of the following conditions will be mostly seen in this patient:

- A) distant metastasis
- B) excessive ADH secretion
- C) extensive pleural fibrosis

ANSWER : C

255. correct regarding adenocarcinoma:

ANSWER : it is associated with hypertrophic pulmonary osteoarthropathy

256. Regarding lung tumors, one of the following is CORRECT:
A) Small cell carcinoma is the most common type
B) Lung hamartomas are classified as developmental anomalies
C) Squamous cell carcinoma are the most common tumors in women
D) Most carcinoids are peripherally located in the lung
E) Mesothelioma can be epithelial, sarcomatous, or mixed

ANSWER: E

257. Long case that begins centrally in a localized area and spread widely to the pleura (pleural cell proliferation), this case is associated with ?

- A) distant metastasis
- B) Adenocarcinoma
- C) Extensive pleural fibrosis

ANSWER : C

Lecture 7

258. Which of the following is correct about paraneoplastic syndromes:

ANSWER : Clubbing of the fingers with 5cm Adenocarcinoma

259. Which of the following is a wrong combination in paraneoplastic syndrome:

ANSWER : cushing syndrome - squamous cell neoplasm .

260. Paraneoplastic hypercalcemia:

ANSWER : squamous cell carcinoma

261. Apical neoplasms that may Invade the brachial or cervical sympathetic plexus, is called:

- A) pancoast tumor
- B) carcinoid syndrome
- C) superior vena cava syndrome
- D) horner syndrome

ANSWER:A

Lecture 7

262. hypercalcemia as a paraneoplastic syndrome is mostly associated with:

- A) small cell carcinoma
- B) carcinoid tumor
- C) Squamous cell carcinoma
- D) adenocarcinoma
- E) large cell carcinoma

ANSWER : C

263. arcinoid syndrome induces:

- A) lymph node metastasis
- B) flushing
- C) constipation
- D) repiratory difficulties

ANSWER: B

264. tobacco smoking increases the risk of mesotheliomaA) TrueB) Fals

ANSWER: B

Lecture 8

265. Which of the following is correct about TB

- A) Secondary TB is localized in the lower lobe
- B) Mycobacterium bovis causes oropharyngeal TB
- C) Mycobacterium avium complex causes disease in 3% of AIDS patients

ANSWER: B

266. Regarding primary pulmonary TB which is correct?

A) T-cell mediated immune response develops within the first 30 minutes after exposure
B) Bacteremia is usually asymptomatic or associated with mild symptoms
C) The first step after mycobacteria entry is the activation of phagolysosome killing
D) TNF mobilizes antimicrobial defensins against the mycobacteria
E) IL-12 stimulate expression of inducible nitric oxide synthase to produce nitic oxide

ANSWER: B

267. Regarding TB, one of the following is correct?

A) Mycobacterium avium complex is associated with intestinal TB
B) Pulmonary TB is associated with extensive lymph node involvement
C) 95% of primary TB causes develops a progressive disease
D) Apical lung involvement is characteristic of secondary TB
E) Lung cavitation is more common during primary disease

ANSWER: D

268. Which of the following is correct about TB:
A) Primary TB is not infective
B) Regional lymph nodes are less involved in secondary TB
C) 80% of primary TB becomes secondary

ANSWER: B
Pathology

Lecture 8

269. PPD:

ANSWER : tuberculin skin test

270. False positive tuberculin test:

ANSWER : atypical mycobacteria

271. Male associated with ghon complex in "routine" x ray, what is wrong:

ANSWER : can transmit disease to others

272. acid fast mycobacterial means that once the bacterium is stained, it cannot be decolorized using acids routinely used in the process?

A) TrueB) False

ANSWER:A

Pathology

Lecture 8

273. which of the followings is mostly contracted by drinking contaminated milk?

- A) M. tuberculosis hominis
- B) Mycobacterium avium complex
- C) mycobacterium bovis

ANSWER : C

274. upon the initial exposure to mycobacterium tuberculosis, one of the following is correct:

- A) the patient presents with prominant clinical signs and symptoms
- B) seeding of multiple sites can happen
- C) IFN- γ is secreted from the activated macrophages
- D) epithelioid granuloma formation

ANSWER : B

275. regarding secondary tuberculosis, one of the following statements is correct:
A) localized to the lung apex
B) no central caseation
C) no increased risk of infectivity
D) more than half of patients with primary disease develope secondary tuberculosis

ANSWER: A



Anatomy

276. Name the green pointed bone.

- A) Lacrimal bone
- B) perpendicular plate of palatine bone
- C) ethmoidal bone
- D) lateral pterygoid plate of sphenoid

ANSWER: A

277. Which of the following passes through the opening

- A) Inferior laryngeal arteryB) External laryngeal nerveC) Internal laryngeal nerve
- D) Superior thyroid artery

ANSWER : C

278. The pointed structure is:A) Pulmonary veinB) Pulmonary arteryC) Ep arterial bronchusD) Hyp arterial bronchus



ANSWER: B

279. The green surface is supplied by which nerve?A) Intercostal nervesB) Phrenic nerveC) pulmonary plexus

Anatomy

280. Which of the following isn't found in this fossa?

- A) Maxillary nerve
- B) Pterygopalatine ganglia
- C) Sphenopalatine nerve
- D) First part of the maxillary artery

ANSWER: D

281. The pointed opening is:A) Sphenoid Air sinusB) Bulla ethmoidalisC) Eustachian tubeD) Middle meatus



ANSWER : C

282. Which of the following is wrong about the pointed structure?

A) It has a smooth muscleB) no blood vesselsC) no lymph drainageD) it is lined by oral epithelium

ANSWER: A

283. What nerve supplies the pointed structure?A) internal laryngeal nerveB) external laryngeal nerveC) recurrent laryngeal nerve



Anatomy

284. What is the pointed structure?

A) vagus nerveB) sympathetic chainC) phrenic nerve

ANSWER: A

285. Which sinus drains in this opening?

- A) maxillary
- B) posterior ethmoidal
- C) anterior ethmoidal







286. Pointed impression is of:

A) tracheaB) inferior vena cavaC) esophagus



ANSWER : C

287. What structure leaves the pointed fossa to the infratemporal fossa?

A) Maxillary arteryB) maxillary nerveC) sphenopalatine nerve



Anatomy

288. All of the following are attached to the pointed structure except:A) thyroepiglottic ligamentB) quadrangular membraneC) conus elasticus

ANSWER : C

289. Which of the following is associated with the pointed structure?A) Superior thyroid arteryB) Inferior thyroid artery

ANSWER: B



290. the pointed structures are:

ANSWER : inferior lingual + lateral basal segments

291. Which of the following pass through the pointed foramin to the nasal cavity :

- A) Greater palatine artery.
- B) Anterior superior alveolar grtery
- C) Nasopalatine nerve
- D) Sphenopalatine artery
- E) Greater palatine nerve
- ANSWER: A



Anatomy

292. Which of the following structures passes through the canal indicated with the arrow?

- A) Sphenopalatine vessels .
- B) Orbital vessels.
- C) Maxillary vessels.
- D) Palatine vessels .
- E) Pharyngeal vessels.

ANSWER : E

293. A foreign body was inhaled by a kid. It will most likely reach point:

- A) 4
- B) 3
- C) 2
- D) 5
- E) 1

ANSWER: B



294. Injury of the nerve supply of the pointed muscle, causes one of the following :

- A) Abduction of the vocal cord.
- B) Weakness of the vocal cord .
- C) The vocal cord becomes tense.
- D) Adduction of the vocal cord .
- E) Tilting of the thyroid cartilage forward.

ANSWER: B

295. Identify the pointed structure: A) Inferior thyroid artery . B) Bronchial artery . C) Recurrent laryngeal nerve . D) Pulmonary vein .

E) Pulmonary artery.





Anatomy

296. The pointed impression is :

- A) Esophagus
- B) Left ventricle.
- C) Thoracic duct.
- D) Azygos vein.
- E) Descending thoracic aorta.

ANSWER: A

297. Which of the following is not drained by the area indicated by the arrow?

- A) Posterior ethmoidal sinus
- B) Middle ethmoidal sinus
- C) Frontal sinus
- D) Maxillary sinus
- E) Anterior ethmoidal sinus

ANSWER: A

298. The artery that is associated with the nerve supplying this muscle is

ANSWER : Superior thyroid artery

299. Which of the following passes from the nasal cavity to the oral cavity through the pointed foramin

ANSWER : Nasopalatine nerve



Microbiology

300. Which of the following is an appropriate media for all fungi?A) SDAB) Chrome Agar

ANSWER: A

301. Which of the following is sensitive for bacitracin?

- A) Enterococcus
- B) Strep agalactiae
- C) Strep pneumonia
- D) strep pyogenes

ANSWER: D

302. The following media is:A) chrome agarB) Lowenstein-JensenC) Sabouraud dextrose agar



ANSWER: A

303. The test shows:
A) Strep. Pneumonia
B) Strep. Viridans
C) Strep. Pyogenes
D) Strep. Agalactiae



Microbiology

304. Streptococcus pneumoniae, one is incorrect:

- A) Diplococci
- B) have capsules
- C) lysed by bile
- D) Resistant to optochin
- E) Produce a-hemolysis

ANSWER : D

305. The type of fungus that produce the Blue color on chrom agar media :

- A) Candida tropicalis
- B) Candida glabrata
- C) None of the mentioned
- D) Candida krusei
- E) Candida albican

ANSWER: A

306. The microorganism which is catalase Negative and sensitive to Optochin is :

- A) Beta hemolytic streptococcus group A
- B) Streptococcus Pneumoniae
- C) Enterococcus group D
- D) Staphylococcus aureus
- E) Neiserria Spp

Histology

307. This section was taken from:

- A) Trachea
- B) Primary bronchus
- C) Secondary bronchus
- D) Tertiary bronchus

ANSWER : C

308. The green arrowed cell represents:A) Type I pneumocyteB) Type II pneumocyteC) Endothelial cellD) none of the above





ANSWER: A

309. The orange arrow represents:A) MesotheliumB) Hyaline cartilageC) Elastic fibersD) Endothelium



ANSWER : C

310. Which of the following doesn't exist in this picture?

- A) Loose connective tissueB) pseudostratified ciliated columnar
- C) Goblet cells
- D) hyaline cartilage

ANSWER: D



Histology

311. Identify the type of epithelium indicated with the arrow:

- A) Simple cuboidal ciliated epithelium .
- B) Pseudostratified ciliated columnar epithelium.
- C) Pseudostratified ciliated columnar epithelium with goblet cell.
- D) Simple columnar ciliated epithelium with goblet cell.
- E) Stratified squamous epithelium non-keratinized.

ANSWER : E

312. Identify this section:

- A) Intra-pulmonary tertiary bronchus .
- B) Conducting bronchiole.
- C) Extra-pulmonary secondary
- D) Respiratory bronchiole
- E) Trachea

ANSWER: A





314. Identify the pointed structure :
A) Seromucous glands .
B) Intestinal glands .
C) Hyaline Cartilage .
D) Blood vessels in mucosa .
E) Gastric glands .

ANSWER: A

315. Identify

ANSWER : Trachea





Labs Histology

316. Identify

ANSWER : Smooth muscles



317. the covering epithelium is:A) Pseudostratified ciliated columnar epitheliumB) Stratified squamous non keratinized epithelium



ANSWER: A



Physiology

318. which of the following can be known from this graph :

A) duration of ExpirationB) the reproducibility of the testC) FVCD) TLC



ANSWER : C

319. You have a 15-year-old thin and tall male patient who presents with a threemonth history of dyspnea and wheezes. You perform spirometry, what is the most probable diagnosis based on the spirometry report ?

A) Interstitial lung disease		Predicted	Actual (Measu
B) Pulmonary hypertension			
C) A restrictive pattern due to obesity	FVC (L)	4.04	3.5
D) Normal lung mechanics			
E) Asthma	FEV1(L)	3.55	2.36
ANSWER : E	FEV1/FVC	88%	67%

320. What pattern is suggested by the following volume-time graph (red curve)?

- A) Chronic obstructive pulmonary disease (COPD)
- B) The patient stopped exhaling too early O
- C) Asthma
- D) Restrictive disease
- E) The patient re-inhaled some air during the test

ANSWER: D



321. You did a spirometry test to a patient. The test was reproducible and acceptable and it is done 3 times. A table of results show that FEV1/FVC=90%, FVC of predicted= 72%. What to do next?

- A) Repeat the test again
- B) It is normal
- C) give bronchodilator and repeat
- D) Do methacholine challenge test
- E) Complete pulmonary function test is needed

ANSWER: E

Physiology



323. A normal person with VC = 3.5L IC = 2L Vt = 0.5L FRC = 2.5L, find his ERV A) 1.5 L B) 1 L C) 2.5 L

ANSWER:A



325. RR=10 breaths/minute, tidal volume=600mL, Vd=150mL, then RMV and AV respectively=

ANSWER : 6L/minute, 4.5L/minute.

Physiology

326. A 53 year old female has a history of chest tightness the FEV1/FVC is 50%, FEV1 is 74% of predicted value and FVC is 100% of predicted value, based on the results and the shown graphs, what is your diagnosis?

- A) Uninterpretable, does not meet acceptability criteria
- B) Severe obstruction

C) Normal

D) Mild obstruction

ANSWER:A



-6. -1 0 1 2 3 4 Yolume

A) True

B) False

ANSWER: B

328. If the FVC was 5 liters and the the FEV1/FVC ratio was 60%, what is the value of FEV1?

A) 2.5 LB) Can't be determined from the given dataC) 3 L

ANSWER : C

329. The PEF is measured in LitersA) TrueB) False

Physiology

330. An acceptable spirometery test has the following features:

- A) the difference between the two largest FVC measurement is within 200 ml
- B) Rapid increase in airflow at the start of exhalation
- C) The FVC is within normal limits
- D) Exhalation continued for ~6 seconds

ANSWER: B+D

331. If the spirometry report shows an FEV1/FVC ratio of 90% you can conclude the test result is normal without looking at other parts of the test A) True

B) False

ANSWER: B



333. What test result can be used to distinguish between asthma and chronic obstructive pulmonary disease (COPD)?

- A) Reversibility test
- B) Methcholine chalange test
- C) FEV1/FVC
- D) FEF25-75

ANSWER: A

Pathology

334. Regarding the pointed structure in the figure below, one of the following statements is CORRECT :

- A) Specific for sarcoidosis
- B) Can be seen in granulomas related to tuberculosis
- C) Made of shed epithelial cells
- D) Desmosomes connecting squamous cells
- E) Stellate structures within a macrophage



ANSWER : B

335. Which of the following is true regarding the pointed structure or the disease causing it?

- A) Made of hemosiderin containing proteinaceous material
- B) Progressive worsening dyspnea
- C) Increased lung compliance
- D) The risk of lung cancer is not increased
- E) Caseating granuloma is characteristic

ANSWER : A+B

336. Regarding the histologic findings in the figure



below, one of the following statements is CORRECT :

A) The etiology of the underlying disease is difficult to be determined

B) The etiology of the underlying disease is always related to granulomatous diseases

C) The etiology of the underlying disease is always related to smoking related diseases

D) The etiology of the underlying disease is always related to atelectasis



ANSWER: A

337. Which of the following is true regarding the disease shown in the following section:

- A) The arrows point to desmosomes.
- B) Grow as mucosal plaques that penetrates bronchial wall.
- C) Associated with cigarette smoking.
- D) Strongly related to asbestos exposure.
- E) The tumor is most likely cured by surgery

ANSWER C



Pathology

338. Identify:

ANSWER : Churchman spirals

339. These clear structures represent:

ANSWER: ARDS



340. Smoker for 15 years, choose the right answer about this case

ANSWER : Something about squamous cell carcinoma



341. This section shows:

A) severe restrictive abnormalityB) moderate restrictive abnormalityC) mild restrictive abnormalityD) mild eosinophilia



ANSWER : C

Pathology

342. The following picture is associated with:

ANSWER : Pulmonary hypertension



"تذكّر أنّ عليك السعي والنتيجة قدرٌ مكتوب، ولا تُبالغ في الاستعداد لأي وجهةٍ أو هدف وتنسى متعة الطريق، ثُمّ تكون كالذي بالغ في تجهيز قاربه حتى جفّ البحر"!

لا تُنْسوني من صالح دعائكم

Malek Abu Rahma

The EndGood Luck

