

The Respiratory System

1. Source of pulmonary surfactant is:

- A. Alveolar macrophages
- B. Type I pneumocytes
- C. Type II pneumocytes
- D. Capillary basement membrane

2. The basic defect in neonatal hyaline membrane disease is:

- A. Shock due to sepsis
- B. Deficient production of surfactant
- C. Inhalation of toxins
- D. Aspiration pneumonitis

3. Adult respiratory distress syndrome occurs from the following causes *except*:

- A. Pancreatitis
- B. Oxygen toxicity
- C. Deficiency of surfactant
- D. Diffuse pulmonary infections

4. Primary atelectasis is defined as:

- A. Incomplete expansion of a previously unexpanded lung
- B. Reduction in size of a previously expanded lung due to compression
- C. Reduction in size of a lung due to obstruction
- D. Reduction in lung size due to contraction

5. Pulmonary hypertension is defined as systolic blood pressure in the pulmonary arterial circulation above the following cut off figure:

- A. 120 mmHg
- B. 90 mmHg
- C. 60 mmHg
- D. 30 mmHg

6. Bronchopneumonia is grossly characterised by:

- A. Diffuse consolidation of a lobe or lobes of one or both lungs
- B. Diffuse consolidation of a lobe of one lung
- C. Diffuse consolidation of a lobe of both lungs
- D. Patchy consolidation of a lobe or lobes of one or both lungs

7. The most common causative organism for lobar pneumonia is:

- A. Staphylococci B. Streptococci
- C. Pneumococci D. Haemophilus

8. Viral pneumonias are characterised by the following features except:

- A. Presence of interstitial inflammation
- B. Presence of alveolar exudate
- C. Necrotising bronchiolitis
- D. Multinucleate giant cells in the bronchiolar wall

9. The organism in *Pneumocystis carinii* pneumonia is:

- A. Mycoplasma B. Fungus
- C. Protozoa D. Chlamydia

10. Lung abscess secondary to aspiration pneumonia develops more often in:

- A. Lower lobe of right lung B. Lower lobe of left lung
- C. Upper lobe of either lung D. Middle lobe of right lung

11. Reid index used as a criteria of quantitation in chronic bronchitis is the ratio of thickness of:

- A. Bronchial mucosa to that of bronchial wall
- B. Submucosal glands to that of bronchial wall
- C. Bronchial cartilage to that of bronchial wall
- D. Inflammatory infiltrate to that of bronchial wall

12. The most fibrogenic dust in pneumoconiosis is:

- A. Coal **B. Asbestos**
- C. Silica **D. Beryllium**

13. Classic α -1 antitrypsin deficiency in emphysema has the following phenotype of protease inhibitor:

- A. PiMM **B. PiZZ**
- C. PiMZ **D. PiMO**

14. The extent of damage to pulmonary parenchyma is severest in the following type of emphysema:

- A. Centriacinar **B. Panacinar**
- C. Distal acinar **D. Irregular**

15. Emphysema associated most often with α 1 antitrypsin deficiency is:

- A. Panacinar **B. Centriacinar**
- C. Distal acinar **D. Irregular**

16. Serum IgE levels are elevated in:

- A. Intrinsic bronchial asthma
- B. Extrinsic bronchial asthma**
- C. Predominant chronic bronchitis
- D. Predominant emphysema

17. Bronchiectasis commonly develops in the following microanatomic zone of bronchial tree:

- A. Acini beyond respiratory bronchioles
- B. Acini beyond terminal bronchioles
- C. Terminal bronchioles less than 2 mm diameter
- D. Bronchioles more than 2 mm diameter**

25. The following histologic types of bronchogenic carcinoma have strong association with cigarette smoking except:

- A. Squamous cell carcinoma
- B. Small cell carcinoma
- C. Large cell carcinoma
- D. Adenocarcinoma

26. The following type of bronchogenic carcinoma has worst prognosis:

- A. Squamous cell carcinoma
- B. Small cell carcinoma
- C. Large cell carcinoma
- D. Adenocarcinoma

27. Bronchial carcinoid arises from:

- A. Columnar ciliated epithelium
- B. Goblet cells
- C. Kulchitsky cells
- D. Alveolar lining cells

28. The following tumour does not have association with occupational exposure to asbestosis:

- A. Benign mesothelioma
- B. Malignant mesothelioma
- C. Bronchogenic carcinoma
- D. Laryngeal carcinoma

29. Macrophage-derived fibrogenic cytokine is:

- A. IL-1
- B. IL-8
- C. TNF
- D. TGF β

30. The most important mutation in small cell carcinoma is in the following gene:

- A. *RB* gene
- B. *MYC* gene
- C. *CDK* gene
- D. *RAS* gene

31. Hamman-Rich syndrome is:

- A. Bronchopulmonary dysplasia
- B. Desquamative interstitial pneumonia
- C. Diffuse fibrosing alveolitis
- D. ARDS

32. Most common etiologic factor implicated in chronic bronchitis is:

- A. Atmospheric pollution B. Cotton mills
C. Mycoplasma infection D. Cigarette smoking

33. Which type of asthma occurs in late adult life:

- A. Atopic asthma B. Intrinsic asthma
C. Mixed asthma D. Allergic asthma

34. Asbestos exposure results in all of the following changes except:

- A. Interstitial pneumonia B. Pleural effusion
C. Malignant mesothelioma D. Pleural fibrosis

35. All are types of allergic pneumonitis except:

- A. Bagassosis B. Byssinosis
C. Berryliosis D. Farmer's lung

36. Which of the following mutation is being used to develop targeted molecular therapy in non-small cell cancer of lung:

- A. EGFR mutation B. p53 mutation
C. K-RAS mutation D. p16 mutation

KEY

1 = C 2 = B 3 = C 4 = A

5 = D 6 = D 7 = C 8 = B

9 = C 10 = A 11 = B 12 = C

13 = B 14 = B 15 = A 16 = B

17 = D 18 = D 19 = D 20 = C

21 = C 22 = B 23 = C 24 = D

25 = D 26 = B 27 = C 28 = A

29 = D 30 = A 31 = C 32 = D

33 = B 34 = A 35 = C 36 = A
