

- 20- A 68-year-old woman undergoes pulmonary function testing as part of an evaluation for dyspnea and chronic cough. When lung volume measurements are obtained using both body plethysmography and helium dilution, the residual volume is found to be 0.6 liters higher when measured by plethysmography than when measured by helium dilution. Which of the following underlying diseases could account for this observation?**
- A. Asbestosis
  - B. Chronic obstructive pulmonary disease
  - C. Heart Failure
  - D. Idiopathic pulmonary fibrosis
  - E. Neuromuscular disease
- 21-Which form of emphysema predominantly affects the apex of the lung?**
- A. That caused by  $\alpha$  1-antitrypsin deficiency
  - B. Centriacinar emphysema
  - C. Panacinar emphysema
  - D. Paraseptal emphysema
  - E. Unilateral emphysema
- 22- Patients with COPD with the type A presentation (as opposed to type B) tend to have:**
- A. more cough productive of sputum.
  - B. smaller lung volumes.
  - C. decreased lung elastic recoil.
  - D. more hypoxemia.
  - E. greater tendency to develop cor pulmonale.
- 23-When a bronchodilator is administered to a patient during an asthma attack, which of the following typically decreases?**
- A. FEV1
  - B. FEV/FVC
  - C. FVC
  - D. FEF25-75%
  - E. FRC
- 24- A 58-year-old man with a 60-pack-year history of smoking comes to the clinic because of worsening dyspnea over a 1-year period. He has no cough. On exam, he is a thin man with scattered musical sounds heard on auscultation and a prolonged expiratory phase. Spirometry performed in clinic shows an FEV1 45% predicted, FVC 65% predicted, and FEV1/FVC 0.58. Which of the following would most likely be seen in PA and lateral chest radiographs in this patient?**
- A. Bilateral hilar lymphadenopathy
  - B. Decreased size of the retrosternal airspace
  - C. Decreased vascular markings
  - D. Diffuse, bilateral lung opacities
  - E. Reticular opacities at the lung bases