

**LABORATORY EXERCISE 45
RESPIRATORY ORGANS**

Figure Labels

FIG. 45.1

- | | |
|-----------------------------|------------------|
| 1. Nostril | 7. Frontal sinus |
| 2. Oral cavity | 8. Nasal cavity |
| 3. Epiglottis | 9. Pharynx |
| 4. Larynx | 10. Trachea |
| 5. Bronchus (right primary) | 11. Left lung |
| 6. Right lung | |

FIG. 45.2

- | | |
|--------------------------|---------------------------|
| 1. Frontal sinus | 8. Superior nasal concha |
| 2. Nostril | 9. Middle nasal concha |
| 3. Auditory tube opening | 10. Inferior nasal concha |
| 4. Uvula | 11. Sphenoidal sinus |
| 5. Palatine tonsil | 12. Nasopharynx |
| 6. Epiglottis | 13. Oropharynx |
| 7. Trachea | 14. Laryngopharynx |

FIG. 45.3

- | | |
|--------------------------------------|--------------------------------------|
| 1. Epiglottis (epiglottic cartilage) | 4. Epiglottis (epiglottic cartilage) |
| 2. Thyroid cartilage | 5. Thyroid cartilage |
| 3. Cricoid cartilage | 6. Cricoid cartilage |

FIG. 45.4

- | | |
|---------------|---------------------------------------|
| 1. Epiglottis | 3. False vocal cord (vestibular fold) |
| 2. Glottis | 4. True vocal cord (vocal fold) |

Laboratory Report Answers

PART A

- | | | | |
|------|------|------|-------|
| 1. h | 4. a | 7. j | 10. c |
| 2. b | 5. e | 8. f | |
| 3. i | 6. d | 9. g | |

PART B

(sketches)

PART C

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1. The sticky mucus is secreted into the upper and lower respiratory tract, which will trap particles of dust and microorganisms. | 3. If the smooth muscle of the bronchial tree relaxes, the air passages dilate, which allows a greater volume of air movement. |
| 2. The cilia create a current of mucus toward the pharynx. The mucus contains entrapped particles that are usually swallowed. | |



Critical Thinking Application Answers

The simple squamous epithelial cells allow for rapid diffusion of oxygen and carbon dioxide between the blood and the alveolar air.