Assignment: Chapter 5 questions

There are chapter questions embedded throughout each chapter. To receive credit, you must answer each of the chapter questions below. The answers to these questions serve as the starting point for your class notes and are a way for you to self-check your understanding of the material. That is, reading the chapter and answering the chapter questions is the first step in preparing for the quizzes and the class material.

Answer each of the **43 questions** below, then save and submit your work.

1. Identify the three paired and three unpaired laryngeal cartilages.

2. Describe the three functions of the larynx.

3. Describe separately the general functions of the intrinsic and extrinsic laryngeal muscles.

4. To what do the terms abduction and adduction refer. What muscles control these actions?

5. Identify the supra- and infrahyoid muscles and their functions.

6. Define glottis, subglottis, and supraglottis.

7. Identify the three layers of the lamina propria and describe their composition.

8. Define Reinke's space.

9. Describe the body-cover mechanical model of the vocal folds.

10. Describe the three-layer mechanical model of the vocal folds.

11. What is the function of the cricothyroid joint, and what effect does movement of the joint have on the vocal folds?

12. What types of movements are made by the cricoarytenoid joints and what is the result of those movements?

13. Identify the cranial nerve that supplies neural input to the larynx.

14. Which muscles are innervated by the recurrent branch of that nerve?

15. Which muscle is innervated by the superior laryngeal branch?

16. Describe the Bernoulli effect.

17. Describe a cycle of vocal fold vibration using the updated myoelastic-aerodynamic theory. Importantly, include the contribution of the physical properties of the vocal folds and the aerodynamic forces.

18. What is the relevance of the convergent- and divergent- shaped glottis during phonation?

19. How do the restorative forces of the vocal fold tissues contribute to vibration?

20. Define shear force.

21. Define viscoelasticity.

22. Explain the out-of-phase movement of the mucosal wave.

23. Why is the transglottal pressure often referred to as the driving pressure of vibration?

24. Explain why vocal fold closure is important.

25. Define glottal volume velocity and glottal waveform.

26. Define glottal resistance and provide a synonym.

27. What is the phonation threshold pressure, and what is an average value for it?

28. Name and describe the three types of phonation outset.

29. What is vocal rise-time?

30. Define stress and strain.

31. Define linearity.

32. Explain two notable features of the stress-strain curve as they relate to vocal fold vibration.

33. Define fundamental frequency, provide its symbol, and give average values for adult men, women, and children.

34. What factors regulate the natural resonance of the vocal folds?

35. What factors regulate change in fundamental frequency?

36. Under what circumstances does the body of the vocal folds vibrate along with the cover?

37. What is the contribution of lung pressure to the control of fundamental frequency?

38. What information have EMG data contributed to our understanding of fundamental frequency control?

39. How is intensity regulated?

40. Provide average values of intensity for habitual speaking, soft, and loud phonation.

41. Define the Lombard effect.

42. Define the six different types of mechanical stress to which the vocal folds are subjected: tensile, contractile, impact, inertial, aerodynamic, and shear.

43. Define voice quality.