13. Which of the following terms is associated with the Myoelastic-Aerodynamic theory?
    a. Muscles
    b. Moving air
    c. Intra oral air pressure
    d. A and C
    e. A and B

14. The three meningeal layers that protect the brain and spinal cord are (starting from outermost layer to innermost layer):
    a. Arachnoid, gyri, dura
    b. Arachnoid, pia, dura
    c. Dura, arachnoid, pia
    d. Pia, dura, arachnoid
    e. None of the above

15. What structure allows the two hemispheres to communicate with each other?
    a. Longitudinal fissure
    b. Cerebrum
    c. Angular gyrus
    d. Corpus callosum
    e. Cerebellum

16. The area in the brain responsible for speech motor planning is called?
    a. Broca's area
    b. Wernicke's area
    c. Aphasia area
    d. A and B
    e. A and C

17. The brainstem consists of which three structures?
    a. Incus, malleus, stapes
    b. Gyri, sulci, fissure
    c. Cerebellum, cortex, midbrain
    d. Medulla, pons, midbrain
    e. Dorsal, ventral, caudal

18. What structure is involved with motor coordination, balance, and movement?
    a. Brainstem
    b. Midbrain
    c. Cerebellum
    d. Cerebrum
    e. All of the above

19. What structure is a rigid and flexible tube consisting of 20 C-shaped cartilaginous rings?
    a. Trachea
    b. Larynx
    c. Esophagus
    d. Pharynx
    e. Intestine

20. The three cavities in which sound vibrates are called?
    a. Thyroid, cricoid, arytenoid
    b. Dorsal, ventral, caudal
    c. Trachea, thorax, diaphragm
    d. Bronchi, alveolar ducts, bronchioles
    e. Oral, pharyngeal, nasal

21. Which of the following doesn't belong?
    a. Thyroid
    b. Cricoid
    c. Arytenoid
    d. Pinoid
    e. None of the above

22. What area is known as the language center of the brain?
    a. Broca's area
    b. Wernicke's area
    c. Aphasia area
    d. Midbrain area
    e. Parietal area

23. The central nervous system is composed of?
    a. brain
    b. cranial nerves
    c. spinal cord
    d. A and C
    e. All of the above

24. The structures of the respiratory system are involved in two major functions. These include:
    a. swallowing and speaking
    b. breathing and sound production
    c. chewing and sound production
    d. swallowing and sound production
    e. none of the above

25. The process of producing sound at the larynx is called?
    a. Breathing
    b. Stuttering
    c. Pragmatics
    d. Phonation
    e. Respiration

26. The space between the vocal folds is known as?
    a. Thyroid space
    b. Tracheal space
    c. Glottis
    d. Velum
    e. Epiglottis

27. Men's vocal folds vibrate how many times per second?
    a. 500 times
    b. 10 times
    c. 400 times
    d. 250 times
    e. 125 times

28. Women's vocal folds vibrate how many times per second?
    a. 500 times
    b. 10 times
    c. 400 times
    d. 250 times

e. 125 times

29. How much time is spent exhaling when breathing for speech?
    a. 10%
    b. 90%
    c. 45%
    d. 1%
    e. None of the above

30. What is the dome-shaped muscle that contracts to initiate the process of breathing?
    a. Thyroid
    b. Diaphragm
    c. Trachea
    d. Esophagus
    e. Thorax

31. The brain consists of four lobes. Name and describe the functions of the four lobes.

32. Describe the Bernoulli principle and the body-cover model and how it relates to vocal fold vibration.

33. Describe the steps for breathing.

34. Describe the differences between the central nervous system and the peripheral nervous system.

35. Describe the process of sound production.

Chapter 3

Speech Sounds, Articulation, and Phonological Disorders

1. ____ of production is the location where the sound is made within the vocal tract.
    a. Manner
    b. Place
    c. Voicing
    d. A and B
    e. None of the above

2. When infants start to put consonant-like sounds together with vowel-like sounds to produce longer strings of sounds it is called?
    a. Jargon
    b. Babbling
    c. Cooing
    d. Vegetative
    e. All of the above

3. ____ is the process of evaluating a large number of children in a short time period to determine if a problem exists or not.
    a. Evaluation
    b. Examination
    c. Screening
    d. Sampling
    e. Assessment

4. Apraxia of speech is defined as a motor speech problem due to damage to the frontal lobe.
    a. True
    b. False

5. ____ involves evaluating all the sounds that a child produces in all word positions (initial, medial, and final).
    a. Error Pattern Analysis
    b. Maintenance
    c. Additions
    d. Speech Sound Inventory
    e. Conversational Speech Sampling

6. _____ of production classifies sounds according to how the breath stream is managed within the vocal tract.
    a. Manner
    b. Place
    c. Voicing
    d. A and B
    e. None of the above

7. Generalization refers to learning and using sounds in words and sentences outside of the therapy room.
    a. True
    b. False

8. Distortion occurs when a child is typically producing a sound that does not normally occur within the English language.
    a. True
    b. False

9. _____ are rules children use to simplify or modify the adult form.
    a. Speech sound errors
    b. Speech sound analysis
    c. Phonological processes
    d. Substitutions
    e. A and D

10. Maintenance is the first step to traditional articulation therapy and it works by teaching the child to correctly produce the sound.
    a. True
    b. False

11. My aunt says "Chawcolate" when she wants some candy and my student says "Chacholate" when she wants some candy. These variations in speech sound productions are called?
    a. Flutophones
    b. Flutophemes
    c. Allophonemes
    d. Allonons
    e. Allophones

12. Which of the following speech sounds develop first in children?
    a. Nasals, stops, glides
    b. Fricatives and affricates
    c. Consonant clusters and affricates
    d. Liquids and fricatives
    e. Liquids and affricates

13. Dysarthria is often associated with children and adults who have experienced the following, EXCEPT:
    a. Cerebral palsy
    b. Specific language impairment
    c. Strokes
    d. Traumatic brain injury
    e. Brain tumors

14. Which of the following doesn't belong?
    a. Nasals
    b. Fricatives
    c. Glides
    d. Jargon
    e. Stops

15. Consonants can be classified into which of the following categories?
    a. Diphthongs, back, front
    b. Place, manner, voice
    c. Superior, posterior, anterior
    d. Prelingual, perilingual, postlingual
    e. Marginal, canonical, variegated

16. Combing two vowels by changing the shape of the vowel tract when moving from one vowel to the next is known as a?
    a. Bilabial
    b. Labiodental
    c. Diphthong
    d. Linguadental
    e. Phoneme

17. When a child says "ba" for "ball," this is an example of what category of misarticulation?
    a. Distortion
    b. Addition
    c. Substitution
    d. Omission
    e. All of the above

18. The following are syllable structure processes, EXCEPT:
    a. Fronting
    b. Final consonant deletion
    c. Reduplication
    d. Consonant cluster simplification
    e. A and C

19. The development of the lips and palate occur during the first trimester of pregnancy. When the structures fail to develop properly leaving a hole in the lip or palate, this is known as?
    a. Dysarthria
    b. Cleft lip and palate
    c. Lip and palate distortion
    d. A and C
    e. All of the above

20. During an evaluation, you ask the child to protrude and retract his lips, produce a smile, blow his cheeks, and move his tongue from side to side. What is this process known as?
    a. Speech sound inventory
    b. Aural examination
    c. Stimulability
    d. Conversational sampling
    e. Oral-facial examination

Chapter 2

1. B
2. A
3. D
4. B
5. B
6. A
7. C
8. A
9. A
10. C
11. E
12. B
13. E
14. C
15. D
16. A
17. D
18. C
19. A
20. E
21. D
22. B
23. B
24. B
25. D
26. C
27. E
28. D
29. B
30. B
31. The frontal lobe contains the primary motor area. Within this area, the muscles of the body are represented along the motor strip. When the cells of the motor strip are activated in the left frontal lobe, the person's muscles in his or her right arm or leg is activated. The frontal lobe plays a role in motor planning, emotional control, judgment, problem solving, and socialization. One area for speech motor planning has been named Broca's area. The parietal lobe contains the primary sensory area. Pain, temperature, and touch information is received in the brain from the opposite side of the body. The temporal lobe contains the primary auditory cortex, responsible for the processing of sound and the location of the brain's language

center called Wernicke's area. The occipital lobe receives and helps to interpret visual information.

32. The Bernoulli principle states that as the speed of a moving fluid increases, the pressure associated with this movement will decrease. When the vocal folds are blown apart, they come back not only because of the elastic properties of the muscles but also because of the Bernoulli principle. The body-cover model explains that the ability of the vocal folds to close from bottom to top helps to account for pressure differences within the larynx and provides a more accurate explanation for the continuous vibration of the vocal folds.
33. To begin the breathing process, we first contract and flatten the diaphragm which increases the volume and decreases the pressure in the thoracic cavity. The pressure outside of the body is now greater than the pressure within the body, so air flows from an area of high pressure to an area of low pressure to fill the lungs up with air. This is known as inhalation. As the lungs fill up with air, the pressure in the lungs increases while the volume of the thoracic cavity decreases and the air rushes out. This is known as exhalation.
34. The central nervous system is responsible for receiving sensory information, integrating these signals with thoughts and memories, and organizing these thoughts to complete some action. The central nervous system is comprised of the brain and the spinal cord. The peripheral nervous system is all the neural tissue outside of the brain and the spinal cord. The peripheral nervous system is comprised of spinal and cranial nerves.
35. The process begins when an individual closes the vocal folds. The air in the lungs is trapped and the pressure below the vocal folds begins to increase. The subglottal air pressure builds up to a point where it can overcome the resistance of the closed vocal folds. When the subglottic air pressure is greater than the forces of resistance, the vocal folds are blown apart and the air rushes through the opening. When the vocal folds are blown apart, they return to their original resting position because of their elastic properties. As soon as the vocal folds return to the closed position, the process begins again and again as the person produces a sound.