Questions on Voice.

1. Describe the vocal cords and describe how they work.
2. Explain how the Bernoulli effect relates to the vocal chords.
3. How are the muscles of the vocal chords similar to a brass player's lips buzzing?
4. When your vocal chords vibrate they can produce frequencies from _____ to _____Hz?
5. List the main parts of the vocal tract and their function.
6. What actually happens when you swallow and something "goes down the wrong pipe?" Do we actually have two different "pipes" in our throats?
7. Musical instruments all have a vibrating part that acts as a source of sound and resonance cavities that enhance certain frequencies. For the human voice, what acts as the vibrating sound source and what acts as resonators?
8. What other parts of the body function as resonating cavities for the human voice?
9. What is pink noise?
10. What are vocal formants?
11. Explain, in terms of formants, what is occurring when a Mongolian throat singer sings.
12. What happens to the human voice if you inhale helium? Why?
13. What happens to the human voice if you inhale sulfur hexafluoride? Why?
14. Why is inhaling sulfur hexafluoride more dangerous than inhaling Helium?
15. Would helium and/or sulfur hexafluoride change the sound of a stringed instrument? What about a tube based instrument? Explain.
16. The distinct sounds that make up the words spoken in a particular language are called _____.
17. What is a diphthong?
18. Name the six categories of phonemes in the English language and how they are formed.
19. Describe the difference in what we do with our mouths when we say a long o, an ah, and an ee sound?
20. In terms of pitch and volume, when does it become difficult to differentiate between phonemes (think about opera singers here)? Explain.
21. Without a tongue or lips, are we able to create all phonemes needed for speech? Explain.
22. What are plosives and fricatives? Give three examples of each.
23. How are the phonemes used by opera singers different from ordinary speech?
24. Why are the phonemes used by opera singers different from ordinary speech?
25. What factors allow an opera singer to be heard over an orchestra, even without electronic amplification?
26. How does impedance matching apply to singing?