

Sounds of Music

Every multiple choice is 2 points

Every matching/fill in the blank is 1 point for each term

Every short answer is 3 points

Every calculation is 5 points

Points will be deducted for improper sig figs

____/64

Name: _____

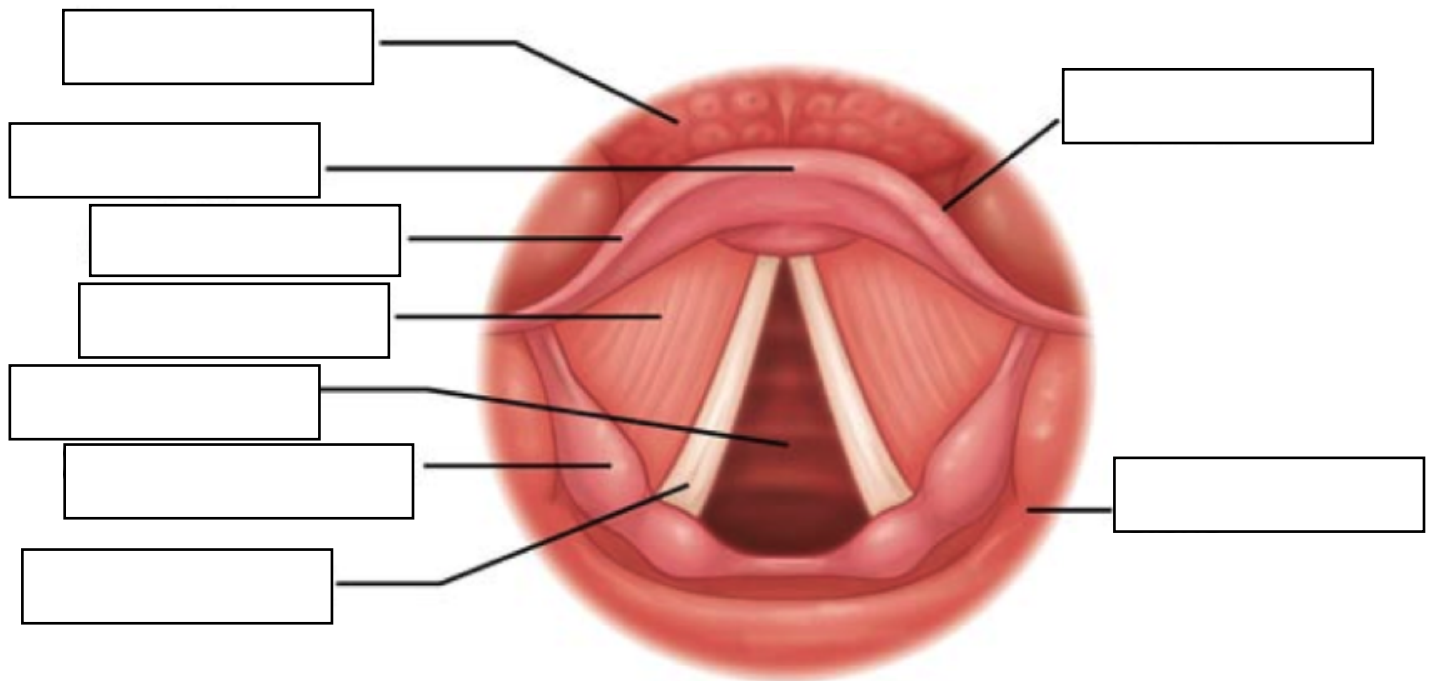
School: _____

Team #: _____

1. What is the most common scale used in western music?
 - a. Chromatic scale
 - b. Augmented scales
 - c. Heptatonic scale
 - d. Octatonic scale
2. How long can your ears tolerate a sound that is 94 decibels?
 - a. 30 minutes
 - b. 1 hour
 - c. 2 hours
 - d. Forever
3. What is a mode in physics?
 - a. A pattern of vibration in oscillating systems
 - b. The most frequent value in a set of data
 - c. A pattern of frequencies in a wave
 - d. A frequency lower than 60 Hz
4. Which of these is the major c scale?
 - a. C, D, E, F, G, A, B
 - b. C, C#, D, D#, E, F, F#, G, G#, A, A#, B, C
 - c. E, F#, G#, A, B, C#, D#, E
 - d. D, D#, E, F, F#, G, G#, A, A#, B, C, C#, D
5. Which chord consists of the notes Db, F, Ab, Bb?
 - a. C#9
 - b. Emin7
 - c. Db6
 - d. Cmin6
6. What is the tuning standard for most instruments?
 - a. Middle C = 261.63 Hz
 - b. A = 440 Hz
 - c. G = 49 Hz
 - d. A = 110 Hz

7. Which variable does not affect the frequency of a vibrating string?
- Friction coefficient of the string
 - Length of the string
 - Mass of the string
 - Tension of the string
8. What is the circle of fifths?
- A representation of the relationship between the notes in the pentatonic scale.
 - A representation of the relationship between the strings of a guitar.
 - A representation of the relationship between the tuning of a guitar.
 - A representation of the relationship between the notes in the chromatic scale
9. Which part of the ear contains the auricle?
- Outer ear
 - Middle ear
 - Core ear
 - Inner ear
10. Which of the following is false about Pythagorean tuning?
- It is the oldest tuning systems to be theoretically discussed.
 - The tuning system would produce wolf intervals.
 - It is based on perfect fourths.
 - It is very easy to tune by ear with this tunic system.
- II. Determine which group the following instruments belong to
1 = Idiophone, 2 = Aerophone, 3 = chordophone.
- Flute __
 - Trumpet __
 - Saxophone __
 - Clarinet __
 - Triangle __
 - hurdy-gurdy __
 - Tuba __
 - Harp __
 - Cymbal __
 - Xylophone __
 - Cello __

12. Label each of part of the vocal cords.



POSTERIOR VIEW

For the following section, fill in the blank.

13. The human body and the mic both have a _____ that moves back and forth.
14. Pianos are tuned with the _____ tuning system.
15. The black keys on a piano are called _____.
16. The cymbals are part of the _____ section of the orchestra.
17. _____ are a type of instrument where the sound is produced by vibrating a stretched membrane.

18. How does a reed instrument create sound?
19. What is the lowest frequency that a 50cm flute can achieve, assuming speed of sound is 343m/s. Write the equation and show work.
20. How many major seconds is the G note away from the B note? How many semitones? How many minor seconds?
21. I have a cello with a A string that is 70.5 cm. This A string is at Stuttgart pitch. If I use the Pythagorean tuning system, how far away should I place my finger from nut to achieve a E? Write the equation and show work.
22. Why is a clarinet considered a cylindrical air column instead of a conical air column?