

Sounds of Music

Division B

Holt Invitational

February 25th, 2023

School Name:

Team #:

Team Members:

Rank: _____
Total Points: __ / __

Part 1 – Multiple Choice

(all questions are worth one point unless stated otherwise)

1. What is the Lower limit of audibility?
 - a. 0 dB
 - b. 20 dB
 - c. 2 dB
 - d. 10 dB

2. What church mode is used for minor scales?
 - a. Aeolian
 - b. Ionian
 - c. Mixolydian
 - d. Lydian

3. What is the circle of fifths?
 - a. A representation of the relationship between the notes in the pentatonic scale.
 - b. A representation of the relationship between the strings of a guitar.
 - c. A representation of the relationship between the tuning of a guitar.
 - d. A representation of the relationship between the notes in the chromatic scale

4. A violinist wishes to tune at A4, which is at a frequency of 440 Hz. The cellist needs to tune an octave lower, at A3. What frequency is that?
 - a. 220 Hz
 - b. 330 Hz
 - c. 238 Hz
 - d. 110 Hz

5. Playing a C major scale from C to C is an example of the _____ mode.
 - a. Aeolian
 - b. Ionian
 - c. Mixolydian
 - d. Lydian

6. What do “D.S.” and “D.C.” stand for, as in D.S. Al Coda and D.C. Al Fine?

De Segno / De Capo

De Segno / Da Capo

Dal Segno / De Capo

Dal Signor / Da Capo

Dal Segno / Da Capo

For each of the instruments shown below, indicate whether it is an idiophone, an electrophone, an chordophone, an membranophone, or an aerophone.

a) aerophone, b) electrophone, c) membranophone d) chordophone e) idiophone

7. Glass Armonica:

8. Theremin:

9. Nyckelharpa:

10. Piano:

11. Timpani:

12. Accordion:

13. Eigenharp:

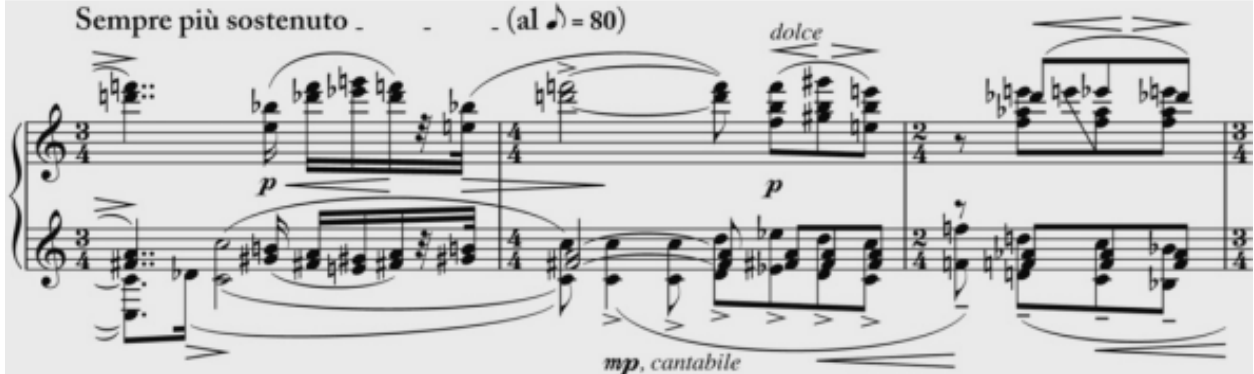
Part 2 – Free Response

14. What note is an augmented sixth above A flat?

15. Why are underwater man-made sounds considered a form of dangerous pollution?

16. How would you play the first harmonic on a cello?

23. For a string instrument, the pitch can be altered by changing the _____, _____, and _____ of the string.



24. In the piece above, how many time signature changes are there?

25. In the piece above, what does cantabile mean?

26. In the piece above, what does the instruction "dolce" mean?

27. What is the definition of Sempre Più Sostenuto?

28. What is the approximate frequency range of human hearing?

For Questions 31 – 35 please use the excerpt below for reference



29. What key is the music in?

30. Describe the dynamics throughout the piece.

31. What tempo is the piece at and what does the tempo mean?

32. The time signature is _____ which means that there are _____ beats per measure and the _____ note is equal to 1 beat.

33. Determine the interval between the circles notes for 1-4. For 5, determine the major triad.

1.

2.

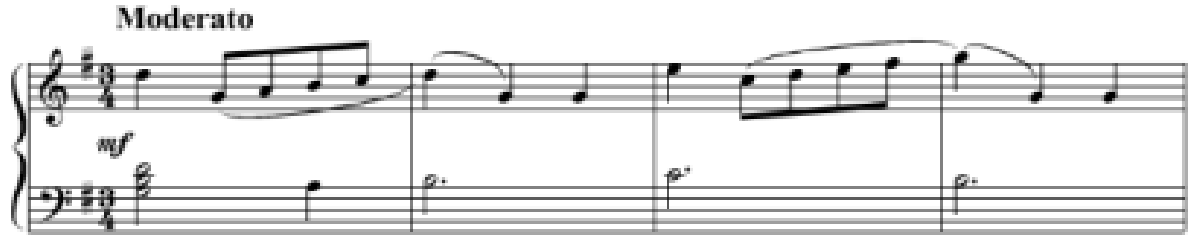
3.

4.

5.

Points On This Page: _____

For Questions 36 – 37 please use the excerpt below for reference



34. Identify the notes on the treble clef in terms of solfege AND the note names

(separate your answer's measures with a vertical bar).

35. What key is the following piece in?

36. Give the general equation for the "Doppler Effect" of two moving bodies and explain how it relates to sound. Give an example of an everyday occurrence of this phenomenon. (8 points)

37. A spherical boombox has power 100 W and a radius of 0.25 m.

a. What is the intensity at the surface of the boombox?

b. An observer standing 5 m away measures what intensity?

Feedback: (Not Graded but Appreciated!)

Rate this test on difficulty from 1-10:

Did you hope to see something on the test that wasn't there? Did you notice anything you thought was a mistake? Any other comments?