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CDMG 1112, OL 08
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CDMG1112-Digital Media Foundations

From the two Power Point given to you answer the following questions.

When applicable, please select all correct answers.

1. A sound with higher _____ is perceived to have a higher pitch.
A. volume
B. frequency
C. fidelity
D. sampling rate
E. bit depth

2. The unit used for measuring _____ is Hertz (Hz).
A. amplitude
B. frequency
C. sampling rate
D. bit depth
E. dynamic range

3. A waveform is a graphical representation of the _____ fluctuations of a sound wave.
A. pressure–time
B. space–time
C. pressure–space

4. The horizontal axis of a waveform is _____.
A. pressure
B. distance
C. time
5. The vertical axis of a waveform is _____.
A. pressure
B. distance
C. time

6. True/False: Zero decibels is when there is absence of sound or no sound wave.

7. The _____ of a sound relates to the sound intensity or loudness.
A. amplitude
B. frequency
D. bit depth
E. dynamic range

8. The _____ of a digitized sound affects the accuracy of the sampled amplitudes being stored.
A. amplitude
B. frequency
C. sampling rate
D. bit depth
E. dynamic range

9. In digital audio, the number of sample points taken per second is called the _____.
A. amplitude
B. frequency
C. sampling rate
D. bit depth
E. dynamic range

10. In digital audio, higher resolution means higher _____.
A. amplitude
B. frequency
C. sampling rate
D. bit depth
E. dynamic range

11. How many levels of amplitude values does an 8-bit sound allow?

12. How many levels of amplitude values does a 16-bit sound allow?

13. Generally, the audio CD music sampling rate is _____ and bit depth is _____.

14. Which of the following are audio file formats?
BMP WAV JPEG AIFF MP3 GIF JPG PSD TIFF WMF

15. According to Nyquist's theorem, we must sample at least _____ points in each sound wave cycle to be able to reconstruct the sound wave satisfactorily. In other words, the sampling rate of the audio must be at least _____ of the audio frequency.

16. The reduction of a digital audio file size can be achieved by _____.
A. reducing the sampling rate
B. reducing the pitch of the audio
C. reducing the bit depth
D. reducing the amplitude of the audio
E. applying file compression techniques

17. Higher _____ will result in larger file size.
A. amplitude
B. frequency
C. sampling rate
D. bit depth
E. dynamic range

18. Reducing the sampling rate from 44.1 kHz to 22.05 kHz will _____.
A. have no effect on the file size
B. decrease the file size by half
C. decrease the file size to about 1/22th
D. decrease the file size to about 1/44th

19. Reducing the bit depth from 16 bit to 8 bit will _____.
A. have no effect on the file size
B. decrease the file size by half
C. decrease the file size to 1/8th
D. decrease the file size to 1/16th

20. Reducing the number of channels from two (stereo) to one (mono) will _____.
A. have no effect on the file size
B. decrease the file size by half
C. decrease the file size to 1/5th
D. decrease the file size to 1/10th

21. The MIDI standard specifies the _____.
A. sampling rate for the synthesized sound
B. bit depth for the synthesized sound
C. configurations of cables and cable plugs
D. format of the data

Please define the following terms for audio:

Sound Waves, Decibel, Sampling Rate, Audio Frequency, Hertz, Pitch, Nyquist rate, Fourier transform
AIFF, .wav, .mp3, .mov. Answers can be found in your text and the PP presentation from today.

1 B, 2 B & C, 3 A, 4 C, 5 A, 6 F, 7 A, 8 C & D, 9 C, 10 D, 11 256, 12 65,536, 13 44,100 HZ & 16 bits, 14 WAV, AIFF, MP3, 15 2, double, 16 A,C,E, 17 C,D, 18 B,19 B, 20 B, 21 C & D