

## Lesson 20

### Recording Connection Final Written Exam

1. Sound waves, as displayed as a waveform on a computer display, that are measured to be farther away from the flat line compared with another sound wave are said to be amplitude.
2. Sound waves travel faster through copper microphone wire compared to the speed of sound.
3. To record a loud sound in a room with several other musicians, a omnidirectional microphone.
4. Cardioid pattern microphones display the following frequency response characteristics (not patterns):
  - a. Front-to-back discrimination
  - b. Irregular polar pattern
  - c. Off-axis coloration
  - d. Bass-proximity effect
5. What is the difference between peak meters versus Volume Unit (VU) meters? A peak meter will detect the short term peaks while the VU meter will ignore it.
6. A compressor that comes on automatically to stop a speaker from overloading is called a variable threshold compressor.
7. Sibillance or "s" sounds may be controlled by a device known as a de-esser.
8. The method of producing artificial reverberation that maintains the most control is the digitally (hall) plug-ins.
9. A compressor that has knobs that need to be controlled manually is called a fixed threshold compressor.
10. Today, reverbs and other digital signal processing are most frequently found in DALIs plug-ins.
11. Name the four types of buses found on most consoles (digital or analog)

<u>Solo</u>
<u>Individual</u>
<u>Mix</u>
<u>Output</u>
12. What type of plug-in would be used to make a sound repeat? Delay.



13. If you need to work on a specific section of a song, place the DAW into loop.

14. List three forms of automation -

Via MIDI control & parameter change messages

Via external hardware controller

Via DAW or other form of automation control

15. Meters used in digital recording equipment are usually LCP oriented.

16. Project and Mixes may be mastered to the intended medium or assembled into a final product

17. A 5.1 surround sound system has 5 speakers.

18. Most DAW's allow USB/FireWire Editing.

19. The sample rate for most CD's is 44.1K.

20. Name the three types of equalizers commonly found in a recording studio.

Tone Controls

Graphic EQs

Parametric EQs

21. To cut the low frequencies in a signal, a low-pass filter may be used.

22. When a narrow bandwidth is chosen and the cut is set to full, that filter is called a high-pass.

23. When we are recording rhythm tracks or doing overdubs our headphone feeds are usually sent through an console/DAW aux/headphone amp

24. Compression is used to protect a speaker from being overloaded or distorted.

25. Once a noise gate is opened, the threshold control adjusts the speed or how quickly the gate closes.

26. The standard method of interlocking audio and video device transports is by the use of SMPTE Time Code.

27. When using two or more microphones, comb filtering may be reduced or eliminated by the use of the 3:1 Distance rule.

28. The names of the different types of styles found in commercial studio patch bays are:

Open

Half Normalled

Normalled

Parallel

29. Electric bass guitars may be recorded by miking the amp's speaker or directly by using a DI Box

30. What does the term "transport" mean? To move from one place to the other
31. In constructing your studio, it is best to angle one or more of the walls to avoid leakage
32. To assist in isolation, we can use a directional microphone placed closer to the sound source.
33. What type of microphone is recommended to record an acoustic guitar by itself? Condenser
34. Digital consoles convert analog input signals to digital signals.
35. What do the black rings signify on a 1/4 inch **connection / jack**?  
They are connectors on a patch bay which enables it to patch in the audio a single rack space configuration signals from a central point to other gear.

Grade Code:

Each question answered correctly = 3 points

102-108 = **A**

95-101 = **B**

88-94 = **C**