

QUIZ

1

Tape Recorders

Name: _____

Date: _____

Score: ____ / 100 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. The supply reel would spin rapidly in a clockwise direction if the tape didn't pull it the other way.
- T F 2. The erase head is always turned on when you push record on a multitrack tape recorder.
- T F 3. Tape is pulled through the recorder by the takeup reel.
- T F 4. The takeup reel spins faster than the capstan.
- T F 5. It is important to clean all of the parts of the tape machine that the tape touches, because bits of magnetic dust are shed from the tape during normal use.
- T F 6. All tape recorders have three heads.
- T F 7. The pinch roller touches a tape guide.
- T F 8. On some tape machines, it is possible to hear what you have just recorded as you are recording it.
- T F 9. When playing, tape moves past the reproduce head from right to left.
- T F 10. All tape transports are computer controlled so that they will automatically push stop for you if you are about to do something that would damage the tape.
- T F 11. On some machines, the erase and record heads are combined.
- T F 12. Using a 4-track recorder and bouncing tracks, you could get 9 tracks.
- T F 13. The reason that tape machines "eat" tape is that the capstan and pinch roller get dirty.

Multiple Choice: Circle the letter of the best answer to each question. (4 points each)

1. The purpose of a tape guide is to:
- A. Help the tape change direction in the tape path
 - B. Move the tape away from heads while fast-forwarding or rewinding tape
 - C. Keep the tape moving the right speed along the tape path
 - D. A + B are correct
2. You should clean a tape machine
- A. Every 5-10 hours of use and before every important recording session
 - B. Every 10-20 hours of use and before every important recording session
 - C. Every 20-30 hours of use and before every important recording session
 - D. Every 30-40 hours of use and before every important recording session

3. A multitrack tape recorder is a tape recorder that can
- A. Record on just part of the tape at once
 - B. Let you play several instruments at several different times and record it all
 - C. bounce several tracks to one track
 - D. All of the above
4. Layering is
- A. My sister's current hairstyle
 - B. The technique of adding one additional recording of a different part on to a previous recording
 - C. The technique of adding many copies of the same part to a previous recording
 - D. None of the above

Matching: Match each word on the left to the best definition on the right. (2 points each)

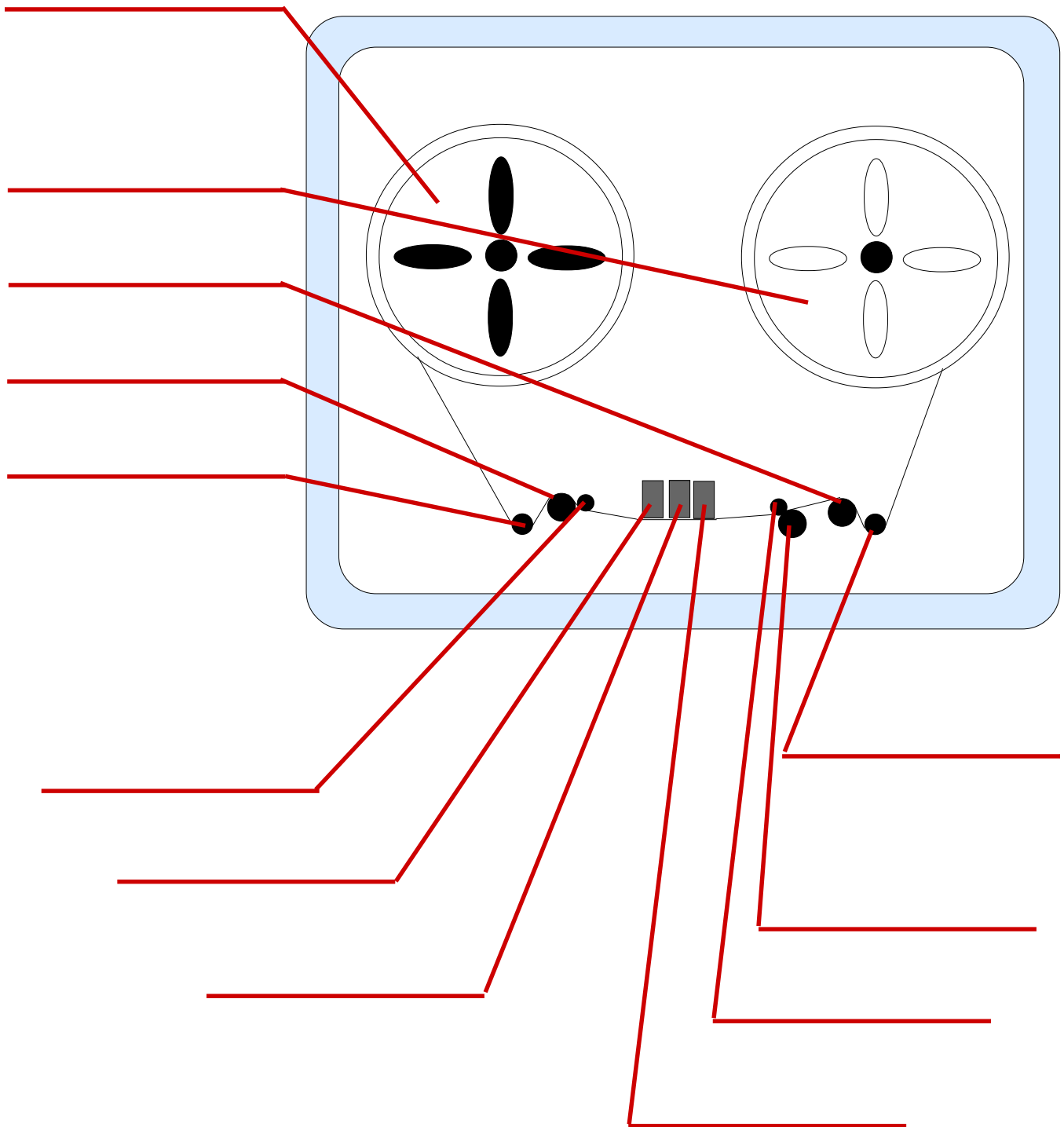
- | | |
|------------------------|---|
| ___ Arm/safe | 1. Another name for bouncing |
| ___ Bouncing | 2. A part of the tape machine which removes information from the tape |
| ___ Erase Head | 3. The play, rewind, fast-forward, stop, and record buttons |
| ___ Record Head | 4. A multi track technique used to fix errors in part of a recording |
| ___ Punch In/Out | 5. A part of the tape machine which puts new information onto the tape |
| ___ Tape Path | 6. A multitrack technique which allows you to combine sounds from several tracks into one track |
| ___ Transport Controls | 7. The controls which determine which track will be recorded to |
| ___ Ping-ponging | 8. The route the tape follows through the tape machine |

Short Answer: Write 1-2 sentences to answer each question. (3 points each)

1. Why is it important to learn about tape recorders when many studios use computers today?

2. What are two disadvantages to bouncing?

Application: Please label the parts of the tape machine below in the blanks provided (3 points each)



EXTRA CREDIT QUESTION:

For four points of extra credit, name the person who invented multitrack recording and many modern multitrack techniques and the city and state in which that person lived.

QUIZ

2

Intro to DAWs

Name: _____

Date: _____

Score: ____ / 66 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. A typical DAW has six main parts.
- T F 2. The erase head is always turned on when you push record on a normal tape recorder.
- T F 3. Tape is pulled through the recorder by the take-up reel.
- T F 4. DAWs typically have two hard drives.
- T F 5. All audio cards connect to an external audio interface with inputs and outputs.
- T F 6. Audio hard drives are usually very large capacity and very fast.
- T F 7. The pinch roller touches a tape guide.
- T F 8. DAWs use tracks.
- T F 9. DAWs have counters that measure time in beats and measures.
- T F 10. You should clean the DAW's heads frequently because they get dirty faster than a tape machine's.
- T F 11. On some machines, the erase and record heads are combined.
- T F 12. DAWs have a fixed number of tracks.
- T F 13. DAWs are always changing and evolving as their software improves.
- T F 14. DAWs have arm/safe controls.
- T F 15. DAWs have transport controls.
- T F 16. A CPU contains the DAW's monitor.

Multiple Choice: Circle the letter of the best answer to each question. (4 points each)

1. Most DAWs start with
- A. A lot of tracks when you first open a new file
 - B. Very few tracks or no tracks when you first open a new file
 - C. It is a trick question; DAWs don't use tracks
 - D. None of these

2. You should clean a tape machine
- A. Every 5-10 hours of use and before every important recording session
 - B. Every 10-20 hours of use and before every important recording session
 - C. Every 20-30 hours of use and before every important recording session
 - D. Every 30-40 hours of use and before every important recording session
3. Which of the following don't you have to do to record on a DAW?
- A. Add a mono or stereo track
 - B. Use the arm/safe control
 - C. Open the edit window
 - D. Set the audio inputs and outputs

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|-----------------------------|--|
| ___ Hard Drive | 1. A circuit board which sits in the CPU. Some allow you to connect the audio interface to them. |
| ___ Arm/Safe Controls | 2. A rack-mountable box which has inputs and outputs on it. It connects to the audio card. |
| ___ Central Processing Unit | 3. The play, rewind, fast-forward, stop, and record buttons |
| ___ Audio Card | 4. A computer with special software and hardware that allows it to act like a tape recorder |
| ___ Shuttle Control | 5. An alternative input device which allows you to control DAW software |
| ___ DAW | 6. The part of the DAW that contains the hard drive and audio card. |
| ___ Transport Controls | 7. The controls which determine which track will be recorded to |
| ___ Audio Interface | 8. A disk in the CPU which holds data |

Short Answer: Write 1-2 sentences to answer each question. (3 points each)

1. Why is it important to learn keyboard shortcuts?
2. What is the purpose of the monitor, keyboard, and mouse/trackball?

EXTRA CREDIT QUESTION:

For three points of extra credit, name the special tape recorders which can record sounds without all of the hiss generated by normal tape recorders. Give the initials by which it is known and its full name.

QUIZ

3

Editing Basics

Name: _____

Date: _____

Score: ____ / 65 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. A typical DAW has six main parts.
- T F 2. On some tape machines, it is possible to hear what you have just recorded as you are recording it.
- T F 3. When you work on a project in a typical DAW program, two separate files are created.
- T F 4. Tape machines are nonlinear recorders.
- T F 5. All audio cards connect to an external audio interface with inputs and outputs.
- T F 6. Audio hard drives are usually very large capacity and very fast.
- T F 7. Analysis files hold the actual sounds you record.
- T F 8. DAWs don't use tracks.
- T F 9. Sound bites can be moved forward and backward in time.
- T F 10. When working with tape, each track can have multiple takes.
- T F 11. The reason that tape machines "eat" tape is that the capstan and pinch roller get dirty.
- T F 12. DAWs have an unlimited number of tracks.
- T F 13. The DAW's cursor always looks the same.
- T F 14. When you cut holes in sound bites on screen, you change the audio files on the hard drive.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. When you move a sound bite forward or backward in time it will move
- A. Anywhere you want it to
 - B. Only to the quarter note divisions
 - C. Only to the eighth note divisions
 - D. All of these answers are correct; it depends on the setting of the grid selector.
2. If you put two sound bites on top of each other
- A. The topmost one will be the one that plays
 - B. You can move the topmost one to the back using layering commands
 - C. You can move the back sound bite to the top using the layering commands
 - D. All of these answers are correct

3. Which of the following can you do to a take on a DAW?

- A. Rename it anything you please
- B. Delete it
- C. Make a copy of it
- D. All of the above

Matching: Match each word on the left to the best definition on the right. (2 points each)

___ Trailing Edge	1. A recording once through a piece, or once through a section of a piece.
___ Leading Edge	2. A series of choices the user makes about what parts of which audio files are to play when and for how long.
___ EDL	3. The leftmost part of a sound bite
___ Edit Decision List	4. A block of recorded audio as it appears on the DAW's screen
___ Take	5. A part or section of a sound bite
___ Sound bite	6. Used to edit a sound bite's edge
___ Region	7. An editing technique which causes regions to play from trailing edge to leading edge
___ Compositing	8. The rightmost part of a sound bite
___ Trimmer Tool	9. The practice of creating one finished track from parts of many recordings
___ Reverse	10. Another name of an edit decision list

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. What is nondestructive editing, and why is it such a powerful way to work?

2. What is editing, and why is it important to master this skill?

EXTRA CREDIT QUESTION:

For three points of extra credit, name the company that makes the Avid Video Editing System and Pro Tools.

Using Plug-ins

Name: _____

Date: _____

Score: ____ / 89 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. A typical DAW has eight main parts.
- T F 2. The supply reel would spin rapidly in a clockwise direction if the tape didn't pull it the other way.
- T F 3. When you work on a project in a typical DAW program, two separate files are created.
- T F 4. All DAWs are nonlinear recorders.
- T F 5. All audio cards connect to an external audio interface with inputs and outputs.
- T F 6. When playing, tape moves past the reproduce head from right to left.
- T F 7. Audio files hold the actual sounds you record.
- T F 8. DAWs don't use tracks.
- T F 9. You can record to an Aux track.
- T F 10. When working with tape, each track can have multiple takes.
- T F 11. The pinch roller touches a tape guide.
- T F 12. DAWs have an unlimited number of tracks.
- T F 13. The DAW's cursor always looks the same.
- T F 14. When you cut holes in sound bites on screen, you change the audio files on the hard drive.
- T F 15. DAWs have arm/safe controls.
- T F 16. Any format of plug-in will work on any DAW.
- T F 17. DAW mixers have aux sends.
- T F 18. DAW mixers have inserts.
- T F 19. You can run an unlimited number of plug-ins at once on some DAWs.
- T F 20. DAW's mixers have mute, solo, and record buttons on each channel.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. When you move a sound bite forward or backward in time it will move
 - A. Anywhere you want it to
 - B. Only to the quarter note divisions
 - C. Only to the eighth note divisions
 - D. All of these answers are correct; it depends on the setting of the grid selector.

2. If you put two sound bites on top of each other
 - A. The topmost one will be the one that plays
 - B. You can move the topmost one to the back using layering commands
 - C. You can move the back sound bite to the top using the layering commands
 - D. All of these answers are correct

3. A bus is
 - A. Like an aux return
 - B. Like an aux send
 - C. Like an insert
 - D. A data pathway in a DAW program

4. Which of the following can you do to a take on a DAW?
 - A. Rename it anything you please
 - B. Delete it
 - C. Make a copy of it
 - D. All of the above

5. You should clean a tape machine
 - A. Every 5-10 hours of use and before every important recording session
 - B. Every 10-20 hours of use and before every important recording session
 - C. Every 20-30 hours of use and before every important recording session
 - D. Every 30-40 hours of use and before every important recording session

6. The purpose of a tape guide is to:
 - A. Help the tape change direction in the tape path
 - B. Move the tape away from heads while fast-forwarding or rewinding tape
 - C. Keep the tape moving the right speed along the tape path
 - D. A + B are correct

7. Which of the following is not a plug-in format we learned about?
 - A. MAS
 - B. TDM
 - C. RTAS
 - D. Direct X
 - E. RYT
 - F. VST

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|---------------------|---|
| ___ Aux Track | 1. Momentarily disables a plug-in |
| ___ Bypass | 2. A format of plug-ins used by Digital Performer |
| ___ Control Surface | 3. A format of plug-ins used by consumer PC programs |
| ___ RTAS | 4. A format of plug-ins used on many different DAW programs |
| ___ MAS | 5. A multi track technique used to fix errors in part of a recording |
| ___ TDM | 6. A format of plug-ins used by Pro Tools systems |
| ___ VST | 7. A multitrack technique which allows you to combine sounds from several tracks into one track |
| ___ Bouncing | 8. Acts like an aux return |
| ___ Punch In/Out | 9. A device which has knobs and sliders in order to simulate a hardware mixer |
| ___ Ping-ponging | 10. Another name for bouncing |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Why are plug-ins more powerful and cost effective than hardware effects units?

2. What are some reasons that DAWs are more effective and more powerful than tape recorders?

EXTRA CREDIT QUESTION:

For three extra credit points, what does TDM stand for?

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. Release velocity messages describe how hard a note was played.
- T F 2. Program change messages include volume messages, panning messages, etc.
- T F 3. When you work on a project in a typical DAW program, two separate files are created.
- T F 4. A MIDI IN can only take in MIDI signals.
- T F 5. Multitimbral means a keyboard can play more than one note at a time.
- T F 6. MIDI cables have 5 pins.
- T F 7. There are 127 possible continuous controllers.
- T F 8. MIDI THRUs only put out MIDI signals.
- T F 9. There are 15 MIDI channels.
- T F 10. Sounds go down MIDI cables.
- T F 11. Most MIDI devices can transmit and receive information.
- T F 12. There are only a few different kinds of MIDI messages.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. When local is turned off
- A. The keyboard is no longer attached to its internal sound source
 - B. The keyboard can put out MIDI signals
 - C. The keyboard still responds to incoming MIDI signals
 - D. All of these answers are correct
2. When omni mode is turned on
- A. The MIDI OUT jack stops working
 - B. The keyboard will make no sound when you play its keys
 - C. The keyboard will respond to all incoming MIDI messages on any channel
 - D. All of these answers are correct

3. MIDI OUT jacks

- A. Put out a copy of information coming in the instrument's IN jack
- B. Put out signals created in that particular MIDI device
- C. Accept incoming MIDI signals
- D. None of these answers is correct

4. Assume keyboard A's MIDI OUT is connected to Keyboard B's MIDI IN. Keyboard A is set to transmit on channel 1 and Keyboard B is set to receive on channel 2. Both keyboard's omni and local are set to off. What happens when you play notes on keyboard A?

- A. Keyboard B plays
- B. Keyboard A and B play
- C. Keyboard A Plays
- D. Nothing

5. Assume keyboard A's MIDI OUT is connected to Keyboard B's MIDI IN. Keyboard A is set to transmit on channel 1 and Keyboard B is set to receive on channel 1. Both keyboard's omni is set to off and local is set to on. What happens when you play notes on keyboard A?

- A. Keyboard B plays
- B. Keyboard A and B play
- C. Keyboard A Plays
- D. Nothing

Matching: Match each word on the left to the best definition on the right. (2 points each)

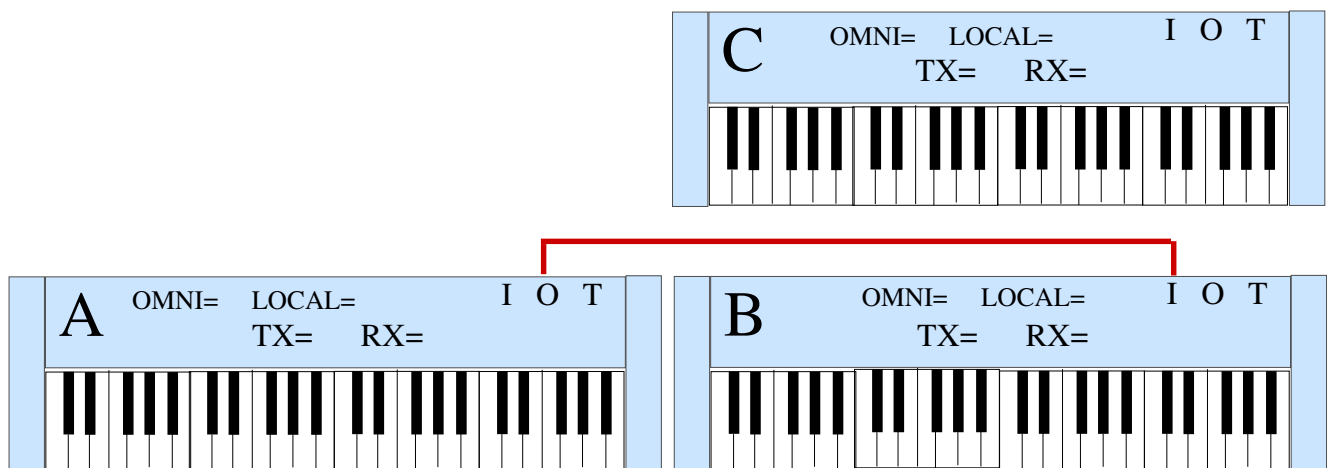
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|---------------------------|--|
| ___ Omni | 1. A measure of how quickly a key is released |
| ___ Local | 2. A measure of how quickly a key is played |
| ___ MMA | 3. A computer language used by musical instruments to communicate |
| ___ MIDI | 4. The setting that disconnects a keyboard from its internal tone module |
| ___ Channel | 5. A setting that lets keyboards respond to all messages regardless of channel |
| ___ Velocity | 6. A section of a multitimbral synthesizer |
| ___ Release Velocity | 7. The organization that oversees MIDI's development |
| ___ Part | 8. A port to which you connect MIDI cables |
| ___ Continuous Controller | 9. A specific frequency TV stations transmit on |
| ___ MIDI Jack | 10. Mod wheel, breath controller, sustain pedal, etc. |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

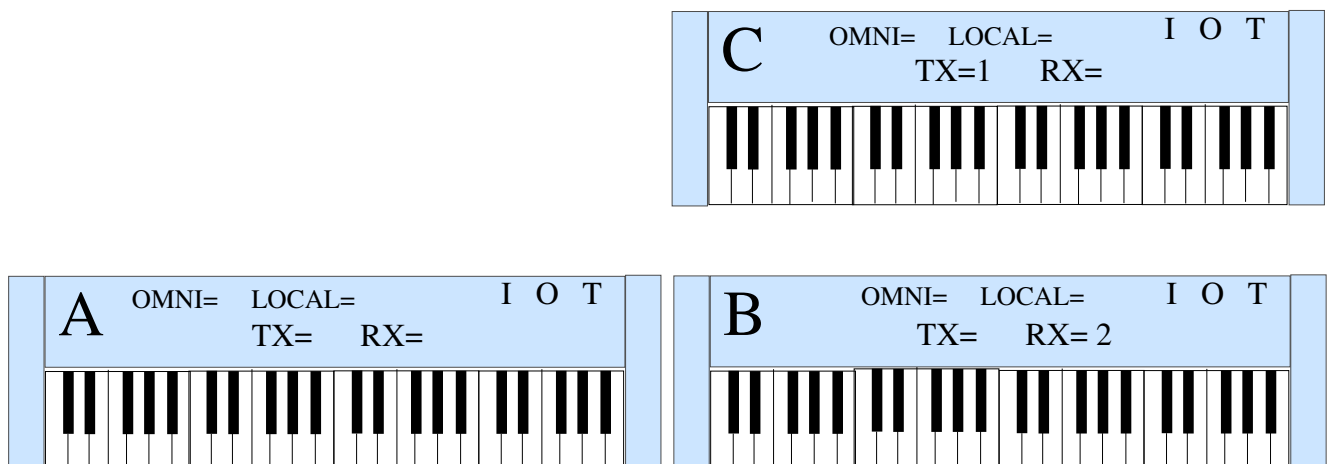
1. What does MIDI stand for and what organization oversees its development? (Spell out the letters, please.)

Application: Draw lines on the pictures below and fill in the necessary information to solve the following MIDI problems. (5 points each)

1. Make keyboard A play keyboard C but not Keyboard B.



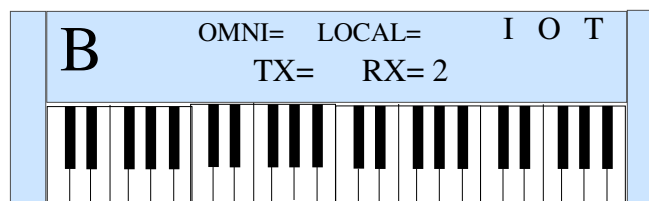
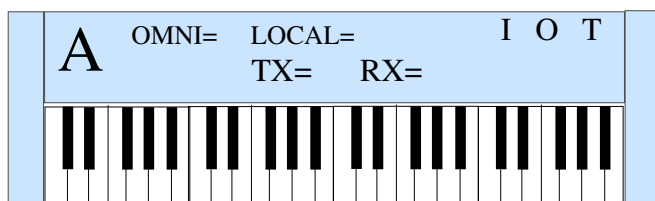
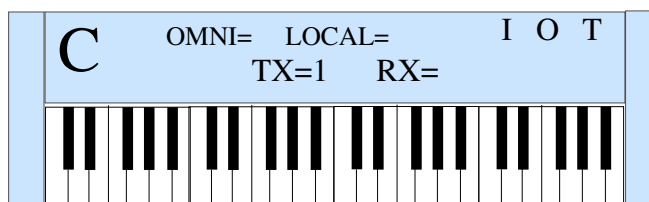
2. Make Keyboard C play keyboard A and B, but no sound should come out of C when it is played.



EXTRA CREDIT QUESTION:

For three points extra credit, what system was used as a standard before MIDI?

3. Keyboard A can play Keyboard C, but Keyboard C cannot play Keyboard A. Keyboard B can play both A and C, but Keyboard B sounds only when Keyboard C is played. (Hint: You need to add another small device to this setup to make it work. Please add it to the picture and label it with its name.)



Application 2: In the blank next to each controller, please write in the correct MIDI continuous controller number as assigned by the MMA. (2 points each)

____ Modulation Wheel

____ Volume

____ Sustain Pedal

____ Pan

QUIZ

6

Intro to Sequencing

Name: _____

Date: _____

Score: ____ / 61 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. On most DAW systems, MIDI signals come into and go out of the computer via an audio interface.
- T F 2. DAWs treat MIDI tracks just like audio tracks in their mixer windows with a few differences.
- T F 3. Most sequencers programs allow you to choose patches on synthesizers right from the sequencing software.
- T F 4. A typical DAW has six main parts.
- T F 5. In step-entry, the sequencer records your notes in real time as you play them.
- T F 6. DAWs have transport controls.
- T F 7. You can hide or show channels in a DAW's mixer window to mute and unmute them.
- T F 8. MIDI THRUs only put out MIDI signals.
- T F 9. There are 16 MIDI channels.
- T F 10. Most MIDI interfaces don't have MIDI activity lights, but a few do.
- T F 11. There are 128 possible continuous controllers.
- T F 12. There are only a few different kinds of MIDI messages.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

- 1. Recording MIDI data into a sequencer takes up
 - A. About the same amount of hard drive space as audio
 - B. A little more hard drive space than audio
 - C. A lot more hard drive space than audio
 - D. None of these answers are correct
- 2. Which of the following is a part of an audio track, but not a MIDI track in a typical DAW?
 - A. Input/output setting
 - B. Arm/safe control
 - C. Mute and solo buttons
 - D. None of these answers are correct
- 3. Auto Rewind
 - A. Can return the sequencer to the beginning of the sequence when you press stop
 - B. Can return the sequencer to any predetermined point in the sequence when you press stop
 - C. Can usually be disabled
 - D. All of these answers are correct

4. The mixer window in most sequencers sends out volume and pan controller messages for MIDI channels. Why wouldn't a synthesizer respond to these messages?

- A. It has only one output and thus can't pan the signal
- B. It is an older synthesizer and can't respond to volume messages
- C. You forgot to turn the synthesizer on
- D. All of these answers are possibilities

5. A bus is

- A. Like an aux return
- B. Like an aux send
- C. Like an insert
- D. A data pathway in a DAW program

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|-------------------------|---|
| ___ Default Patch | 1. A command which reduces the number of visible channels in the DAW's mixer |
| ___ MIDI Activity Light | 2. An alternative input device which allows you to control DAW software |
| ___ MIDI Interface | 3. A piece of hardware or software which can store MIDI data |
| ___ Port | 4. Indicates when data enters or leaves the MIDI interface |
| ___ Real-time Entry | 5. A device which allows MIDI signals to enter and leave a DAW's CPU |
| ___ Step-time Entry | 6. A command which increases the number of visible channels in the DAW's mixer |
| ___ Sequencer | 7. A method of entering MIDI data in which note data is entered separately from rhythm data |
| ___ Show | 8. A pair of MIDI ins and outs on a MIDI interface |
| ___ Hide | 9. A method of entering MIDI data which is most like recording on a tape recorder |
| ___ Shuttle Control | 10. The sound you choose |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. What is sequencing?

EXTRA CREDIT QUESTION:

For two points extra credit, on page 41, the maximum number of MIDI ins and outs using multiple MIDI interfaces was discussed. If you actually had that many MIDI ins and outs, how many separate MIDI channels would you have?

QUIZ

7

Editing Sequences

Name: _____

Date: _____

Score: ____ / 74 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. If your sequencer doesn't have a preview function, there is no way to hear your changes before enacting them.
- T F 2. Depending upon how it is applied, quantizing can make a track sound tight or unpleasantly robotic.
- T F 3. Most DAWs treat MIDI information just like audio information.
- T F 4. The scale function can make some notes louder while others are made shorter.
- T F 5. Only selected notes can be quantized.
- T F 6. You can enter notes into the transpose window by playing them on the keyboard.
- T F 7. You can hide or show channels in a DAW's mixer window to mute and unmute them.
- T F 8. The humanize function works by randomly pushing notes forward or backward in time.
- T F 9. You usually want to transpose drum tracks along with other tracks.
- T F 10. If you are more than one-half of a beat early or late, the sequencer will always incorrectly quantize your data.
- T F 11. The velocity window has a subtract function.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. Quantizing
- A. Can pull notes ahead in time so that they are closer to the beat
 - B. Can push notes back in time so that they are closer to the beat
 - C. Can leave notes where they are if they are within the set tolerance level
 - D. All of these answers are correct
2. Which of the following is NOT a method of changing duration?
- A. Add
 - B. Subtract
 - C. Smooth
 - D. Scale
 - E. Set
3. Which would be the best function to make all of your cymbal crashes loud throughout a track?
- A. Scale
 - B. Set
 - C. Smooth
 - D. Subtract

4. When the sequencer quantizes a track, the beat is determined by
- A. The sequencer's metronome
 - B. The beat in your playing
 - C. Use of the hold pedal
 - D. None of these answers are correct

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|---------------|---|
| ___ Add | 1. The length of time between a note on message and the corresponding note off message |
| ___ Compress | 2. A function which can correct the timing of a track |
| ___ Duration | 3. A function which changes the timing of notes in a track to make them seem less robotic |
| ___ Humanize | 4. A method of changing velocity and duration information in which notes retain their original relationships (short-long, hard-soft velocity) |
| ___ Limit | 5. A function which allows you to specify a value for all of the selected data |
| ___ Quantize | 6. A function found in both the Velocity and duration windows which increases values by a set amount |
| ___ Scale | 7. A velocity editing function which allows you to create smooth crescendos and diminuendos |
| ___ Set | 8. An editing function which allows you to shift notes up or down by a given interval |
| ___ Smooth | 9. A function found in the velocity window which allows you to scale velocity messages in a ratio |
| ___ Tolerance | 10. This setting determines how early or late a note can be in the quantize window |
| ___ Transpose | 11. A method of editing velocity data which restricts data to a defined range of values |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. When in the process of sequencing should we quantize and why?
2. What is the advantage of using the scale function in the velocity and duration windows, and when ISN'T scale the best choice of editing function?

EXTRA CREDIT QUESTION:

For two points, name the button in the quantize window which allows you to hear the changes you are about to make.

Editing Sequences 2

Name: _____

Date: _____

Score: ____ / 95 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. Event edits allow you to change a whole group of notes at once.
- T F 2. Controller messages have a small triangle next to them in the event edit window.
- T F 3. The pinch roller touches the capstan.
- T F 4. You can edit a note message's duration from the event edit window.
- T F 5. There are typically 480 ticks per quarter note.
- T F 6. You can enter notes into the transpose window by playing them on the keyboard.
- T F 7. The erase head is always turned on when you push record on a normal tape recorder.
- T F 8. The humanize function works by randomly pushing notes forward or backward in time.
- T F 9. It is easier to change the velocity of one note with a region edit than with an event edit.
- T F 10. A typical DAW has eight main parts.
- T F 11. The velocity window has an add function.
- T F 12. Bouncing allows you to use more tracks than you actually have by combining some previously recorded tracks.
- T F 13. Any format of plug-in will work on any DAW.
- T F 14. You can record to an aux track.
- T F 15. You can run an unlimited number of plug-ins at once on some DAWs.
- T F 16. Audio files hold the actual sounds you record.
- T F 17. Multitimbral means a keyboard can play more than one note at a time.
- T F 18. Most MIDI devices can transmit and receive information.
- T F 19. There are only a few different kinds of MIDI messages.
- T F 20. Most MIDI interfaces don't have MIDI activity lights, but a few do.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. When you move a sound bite forward or backward in time it will move
 - A. Anywhere you want it to
 - B. Only to the quarter note divisions
 - C. Only to the eighth note divisions
 - D. All of these answers are correct; it depends on the setting of the grid selector.
2. You should clean a tape machine
 - A. Every 5-10 hours of use and before every important recording session
 - B. Every 10-20 hours of use and before every important recording session
 - C. Every 20-30 hours of use and before every important recording session
 - D. Every 30-40 hours of use and before every important recording session
3. Which would be the best function to make all of your cymbal crashes loud throughout a track?
 - A. Scale
 - B. Set
 - C. Smooth
 - D. Subtract
4. A bus is
 - A. Like an aux return
 - B. Like an aux send
 - C. Like an insert
 - D. A data pathway in a DAW program
5. When the sequencer quantizes a track, the beat is determined by
 - A. The sequencer's metronome
 - B. The beat in your playing
 - C. Use of the hold pedal
 - D. None of these answers are correct
6. If you put two sound bites on top of each other
 - A. The topmost one will be the one that plays
 - B. You can move the topmost one to the back using layering commands
 - C. You can move the back sound bite to the top using the layering commands
 - D. All of these answers are correct
7. The purpose of a tape guide is to:
 - A. Help the tape change direction in the tape path
 - B. Move the tape away from heads while fast-forwarding or rewinding tape
 - C. Keep the tape moving the right speed along the tape path
 - D. A + B are correct

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|-----------------------|--|
| ___ Event List | 1. A disk in the CPU which holds data |
| ___ Tick | 2. A format of plug-ins used by Digital Performer |
| ___ PPQ | 3. A format of plug-ins used on many different DAW programs |
| ___ Hard Drive | 4. A format of plug-ins used by Pro Tools systems |
| ___ MAS | 5. A function which allows you to specify a value for all of the selected data |
| ___ Parts per Quarter | 6. A window which displays all of the note messages in a MIDI track according to when they happened in time. |
| ___ Graphic Editing | 7. A velocity editing function which allows you to create smooth crescendos and diminuendos |
| ___ Set | 8. An editing function which allows you to shift notes up or down by a given interval |
| ___ Smooth | 9. The smallest measurement of time on a sequencer |
| ___ Tolerance | 10. This setting determines how early or late a note can be in the quantize window |
| ___ VST | 11. A measurement of how many divisions a sequencer can sense per beat |
| ___ TDM | 12. A window which allows you to see MIDI events as bars |
| ___ RTAS | |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Why are there usually 480 ticks per quarter note in most sequencer programs, as opposed to 500 or 1000? Under this system, how many ticks would a whole note, half note, quarter note, eighth note, sixteenth note, quarter note triplet, and eighth note triplet get?

2. When is the event edit window a good choice for editing MIDI tracks, and when are region edits a better choice?

QUIZ

9

Preproduction

Name: _____

Date: _____

Score: ____ / 58 P F

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. Most recordings don't require much planning.
- T F 2. The vocal on the demo recording is usually the one that ends up on the final CD.
- T F 3. As many as 50 people sometimes work on big projects.
- T F 4. You don't have to run cables for your session before it starts.
- T F 5. Analysis files hold the actual sounds you record.
- T F 6. Experienced session musicians may expect you to pay them extra if you want them to practice before a session.
- T F 7. Markers are points which just show where the song begins and ends.
- T F 8. The percussion sounds which play over and over again and give the musicians an idea of the feel a song should have are called demos.
- T F 9. The DAW's cursor always looks the same.
- T F 10. On some tape machines, it is possible to hear what you have just recorded as you are recording it.
- T F 11. Production schedules are important, because they keep a record of exactly what you said to who.
- T F 12. We don't do any sequencing during preproduction.
- T F 13. To start playing back from a marker in the markers window, just double click next to it.
- T F 14. When you work on a project in a typical DAW program, two separate files are created.

Multiple Choice: Circle the letter of the **best** answer to each question. (3 points each)

1. Which of the following don't you need to do on the day of the recording?
- A. Set up all of the equipment you might need for the session
 - B. Check all of the headphones and microphones
 - C. Check the space on the DAW's hard drive
 - D. None of the above
2. You should write in your conversation log
- A. Whenever you have a really important conversation
 - B. Whenever you schedule a session or meeting
 - C. Whenever you have even a short conversation about your project
 - D. All of the above

Matching: Match each word on the left to the best definition on the right. (2 points each)

- | | |
|-------------------------|--|
| ___ Contact List | 1. A document with the names, addresses and phone numbers of everyone working on a particular project |
| ___ Conversation Log | 2. A specialized synthesizer |
| ___ Production Schedule | 3. A small yellow triangle which allows you to quickly jump to part of a piece |
| ___ Demo | 4. A document which schedules the different stage of a CD's production from preproduction to mastering |
| ___ Sampler | 5. A series of percussion sounds which play in a rhythmic pattern |
| ___ Drum Loop | 6. The stage of production in which the recording is planned |
| ___ Marker | 7. A recording which shows musicians how a song is supposed to sound |
| ___ Preproduction | 8. A document which is a written record of your interactions with other people working on your project |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Why is it important to create a contact list for each project you work on?

2. Why should you keep a conversation log for each project you work on?

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. You don't have to worry about the level at which you record signals.
- T F 2. Most of the equipment used for recording resides in the studio.
- T F 3. The headphone mix should have the performer's part louder than it would be for the finished mix.
- T F 4. The audio monitor window shows which tracks are connected to which jacks on the audio interface.
- T F 5. The performer has one mic to sing into, and a separate mic to talk to the engineer.
- T F 6. Latency is less of a problem on newer, more modern computers.
- T F 7. Signals from the talkback mic flow from the studio into the control room.
- T F 8. If you don't let the singer hear enough of themselves, they may sing flat.
- T F 9. The studio should be as acoustically isolated as possible from the control room.
- T F 10. Large commercial studios usually have an airtight sealed window between the control room and studio.
- T F 11. Production schedules are important, because they keep a record of exactly what you said to who.

Multiple Choice: Circle the letter of the best answer to each question. (3 points each)

1. Which of the following is another name for headphones?
- A. Canned peas
 - B. Trash can
 - C. Cans
 - D. Going to the can
2. The engineer/producer:
- A. Runs the recording equipment
 - B. Coaches performers to get good performances out of them
 - C. Sets up equipment before a session
 - D. All of the above
3. The best way to track is:
- A. To record only small sections of the song at once
 - B. To record the piece by playing through the entire song
 - C. To do whatever the best way is for that piece
 - D. None of the above

Matching: Match each word on the left to the best definition on the right. (2 points each)

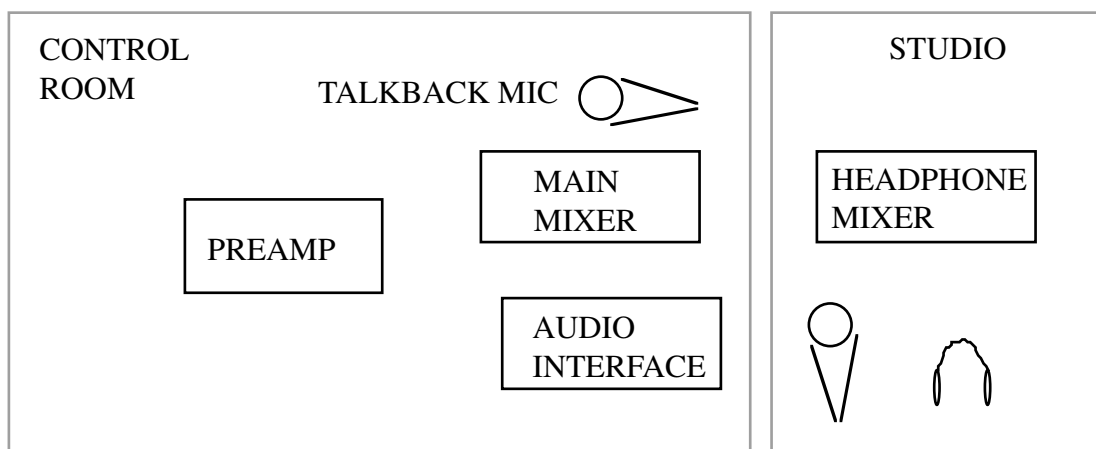
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|---------------------|---|
| ___ Talkback Mic | 1. The room where performers perform during recording sessions |
| ___ Studio | 2. The delay introduced when audio goes through the audio interface |
| ___ Control Room | 3. Allows people in the control room to talk to people in the studio |
| ___ Headphone Mix | 4. The stage of production in which sounds are recorded |
| ___ Headphone Mixer | 5. When the signal gets too loud for the audio interface to handle |
| ___ Tracking | 6. Levels settings which allow a performer to hear themselves clearly while performing. |
| ___ Latency | 7. The room the engineer sits in during recording sessions |
| ___ Distortion | 8. Allows the performer to adjust the levels of signals they are hearing |

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Why must the engineer listen very closely to the performer's performances during a tracking session? What must the engineer be sure to have accomplished before the session ends?

2. What is the procedure for setting levels on the mic preamp and in the DAW before recording?

Application: Draw lines with arrows to show how signals flow between these different devices to create a monitoring system for a basic tracking session. (7 points)



True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

- T F 1. There is no need to use the solo buttons while mixing.
- T F 2. Submixing allows you to get more control over the submixed tracks, but uses more plug-in power.
- T F 3. You should try to position all instruments so that they seem to be right in the middle of the mix.
- T F 4. The first step in the mixing process is mixdown.
- T F 5. You can automate plug-ins.
- T F 6. Latency is a kind of delay.
- T F 7. You can stop the automation from playing back on a track by using the automation record button.
- T F 8. Once you have finished mixdown, you are not allowed make any changes to your mix.
- T F 9. To create a good stereo image, put all of the instruments on top of each other.
- T F 10. Automation controls look like a tiny play, record, and pause buttons on each channel.
- T F 11. Engineers once used 2-track reel-to-reel recorders for mixdown.

Multiple Choice: Circle the letter of the best answer to each question. (3 points each)

1. Automation allows you to
- A. Record your moves on the mixer and cause them to play back later
 - B. Move your studio around easily
 - C. Sit and drink soda during the mixing session while the computer does all the hard work
 - D. Sprout extra arms so that you can control every control on the mixer at once
2. Submixing is
- A. When you assign the outputs of several tracks to one output on the audio interface
 - B. When you assign the outputs of several tracks to a bus which goes to an aux track
 - C. When you assign the outputs of one track to several aux tracks at once
 - D. Like a date with Britney Spears.
3. The purpose of a tape guide is to:
- A. Help the tape change direction in the tape path
 - B. Move the tape away from heads while fast-forwarding or rewinding tape
 - C. Keep the tape moving the right speed along the tape path
 - D. A + B are correct

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Explain what you need to do to submix several tracks together, and explain the advantage of submixing.

2. How can you use the mute and solo buttons to improve your mix? What procedures should you follow to insure each track works well with the others?

True or False: Circle T if the entire sentence is true, and F if any part of the sentence is false. (2 points each)

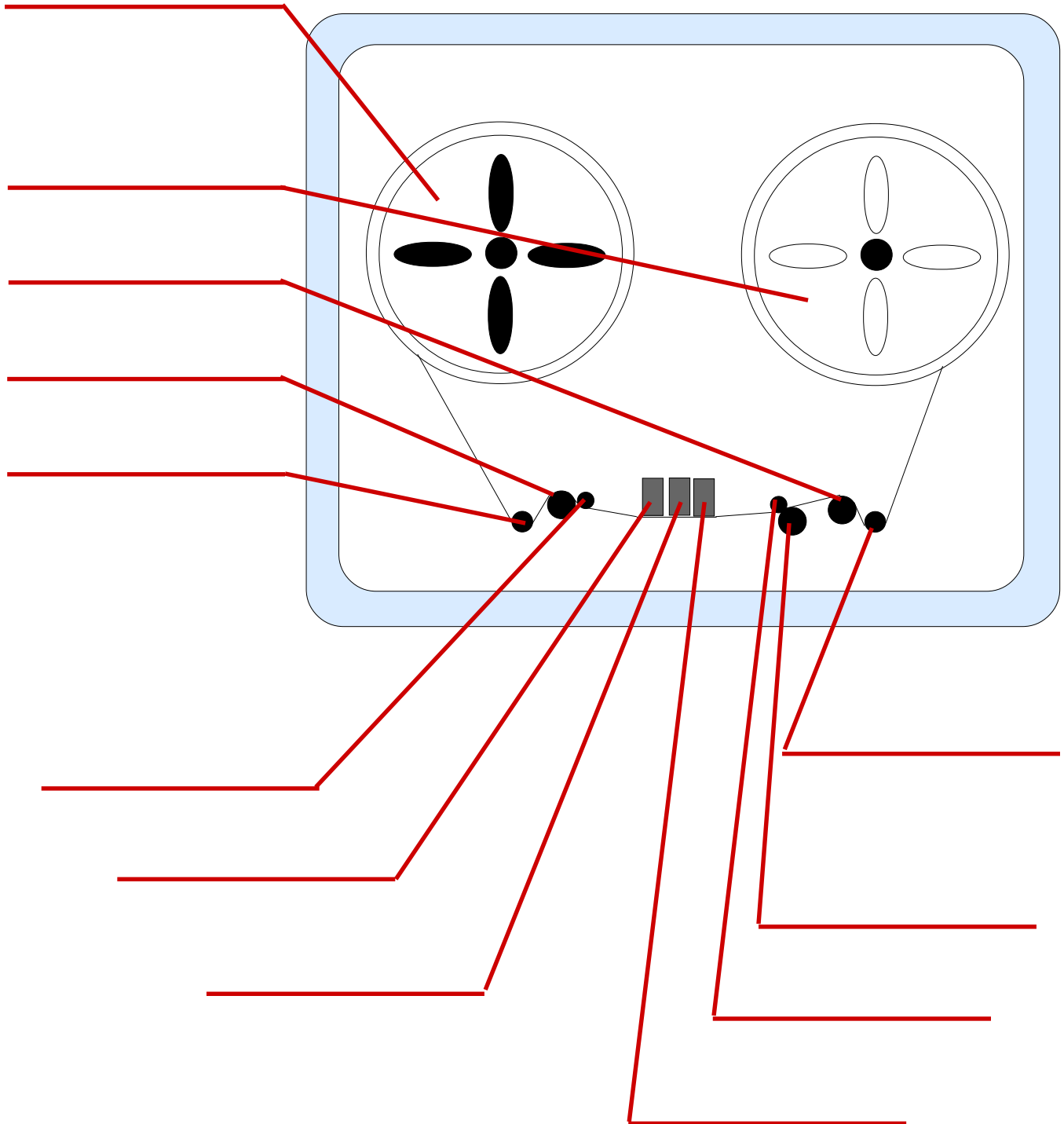
- T F 1. We don't usually want to use a limiter as the last effect on the master channel.
- T F 2. A duplication faculty is the person who makes thousands of copies of a CD.
- T F 3. Master inserts affect all channels on the mixer.
- T F 4. Psycho acoustic processors are just fancy reverb units.
- T F 5. You can record audio to the master channel.
- T F 6. The order in which effects appear on the master channel doesn't matter.
- T F 7. There are typically 460 ticks per quarter note.
- T F 8. You can run an unlimited number of plug-ins at once on some DAWs.
- T F 9. Most MIDI devices can transmit and receive information.
- T F 10. Controller messages have a small triangle next to them in the event edit window.
- T F 11. You can edit a note message's duration from the event edit window.
- T F 12. The velocity window has an add function.
- T F 13. When working with tape, each track can have multiple takes.
- T F 14. DAW mixers have inserts.
- T F 15. All audio cards connect to an external audio interface with inputs and outputs.
- T F 16. When you cut holes in sound bites on screen, you change the audio files on the hard drive.
- T F 17. Audio files hold the actual sounds you record.
- T F 18. The CPU contains the DAW's monitor.
- T F 19. DAW mixers have aux sends.
- T F 20. All DAWs are nonlinear recorders.

Multiple Choice: Circle the letter of the best answer to each question. (3 points each)

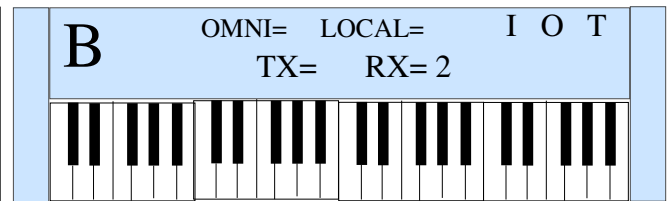
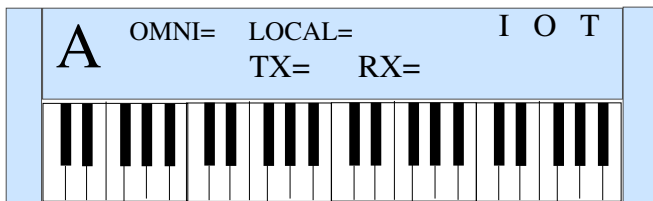
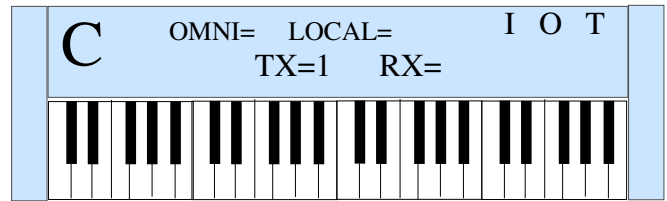
1. Which of the following can you do to a take on a DAW?
 - A. Rename it anything you please
 - B. Delete it
 - C. Make a copy of it
 - D. All of the above
2. If you put two sound bites on top of each other
 - A. The topmost one will be the one that plays
 - B. You can move the topmost one to the back using layering commands
 - C. You can move the back sound bite to the top using the layering commands
 - D. All of these answers are correct
3. Which of the following don't you have to do to record on a DAW?
 - A. Add a mono or stereo track
 - B. Use the arm/safe control
 - C. Open the edit window
 - D. Set the audio inputs and outputs
4. A bus is
 - A. Like an aux return
 - B. Like an aux send
 - C. Like an insert
 - D. A data pathway in a DAW program
5. When the sequencer quantizes a track, the beat is determined by
 - A. The sequencer's metronome
 - B. The beat in your playing
 - C. Use of the hold pedal
 - D. None of these answers are correct
6. Which would be the best function to make all of your cymbal crashes loud throughout a track?
 - A. Scale
 - B. Set
 - C. Smooth
 - D. Subtract
7. Which of the following is NOT a method of changing velocity?
 - A. Add
 - B. Subtract
 - C. Limit
 - D. Scale
 - E. Set

___ Ping-ponging	1. The leftmost part of a sound bite
___ Tape Path	2. A multitrack technique which allows you to combine sounds from several tracks into one track
___ Audio Interface	3. A function found in both the Velocity and duration windows which increases values by a set amount
___ Audio Card	4. A method of editing velocity data which restricts data to a defined range of values
___ Transport Controls	5. A function which allows you to specify a value for all of the selected data
___ Trailing Edge	6. A function found in the velocity window which allows you to scale velocity messages in a ratio
___ Leading Edge	7. A velocity editing function which allows you to create smooth crescendos and diminuendos
___ Edit Decision List	8. A recording once through a piece, or once through a section of a piece.
___ Take	9. A duration editing function which allows you to alter the durations of notes, but keep their relationship to each other the same.
___ Compositing	10. Mod wheel, breath controller, sustain pedal, etc.
___ Punch In/Out	11. A series of choices the user makes about what parts of which audio files are to play when and for how long.
___ Omni	12. A measure of how quickly a key is released
___ Local	13. A measure of how quickly a key is played
___ Velocity	14. The practice of creating a finished track from parts of many recordings
___ Release Velocity	15. The setting that disconnects a keyboard from its internal tone module
___ Continuous Controller	16. A setting that lets keyboards respond to all messages on all channels
___ Add	17. A multi track technique used to fix errors in part of a recording
___ Compress	18. A rack-mountable box which has inputs and outputs on it. It connects to the audio card.
___ Limit	19. The play, rewind, fast-forward, stop, and record buttons
___ Scale	20. The rightmost part of a sound bite
___ Set	21. A circuit board which sits in the CPU. Some allow you to connect the audio interface to them
___ Smooth	22. The route the tape follows through the tape machine

Application: Please label the parts of the tape machine below in the blanks provided (3 points each)



2. Make Keyboard C play keyboard A and B, but no sound should come out of C when it is played.



Application 2: In the blank next to each controller, please write in the correct MIDI continuous controller number as assigned by the MMA. (2 points each)

____ Modulation Wheel

____ Volume

____ Sustain Pedal

____ Pan

Short Answer: Write 1-2 sentences to answer each question. (4 points each)

1. Explain what a multiband compressor is, and how it does what it does. Be sure to tell what parts make up the compressor and how they are connected, and tell what the advantages of multiband compression are.

2. What is sequencing as it relates to mastering, and what three positions are of primary importance on a CD?

3. Why are plug-ins more powerful and cost effective than hardware effects units?

4. What are some reasons that DAWs are more effective and more powerful than tape recorders?