



Victorian Certificate of Education 2012

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

VCE VET MUSIC INDUSTRY (Technical production)

Aural and written examination

Tuesday 20 November 2012

Reading time: 9.00 am to 9.15 am (15 minutes)

Writing time: 9.15 am to 10.45 am (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	14	14	25
B	23	23	75
			Total 100

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 14 pages.
- Answer **all** questions in the spaces provided.
- An audio compact disc will run continuously throughout Section A of the examination. The audio compact disc will run for 27 minutes.

Instructions

- Write your **student number** in the space provided above on this page.
- You may write at any time during the running of the audio compact disc and after it stops.
- All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

SECTION A**Instructions for Section A**

The audio compact disc plays throughout Section A. In **Questions 1–14**, audio excerpts are played twice.

The announcer explains how the audio excerpt(s) for each question will be played.

Question 1

What is the common name for the unwanted noise at the start of this electric guitar excerpt?

1 mark

Question 2

Name the effect that is used in the second part of this guitar excerpt.

1 mark

Question 3

Name the effect that is used in the second part of this saxophone excerpt.

1 mark

Question 4

Identify which of the following frequencies are being played: 125 Hz, 250 Hz, 500 Hz, 1 kHz, 4 kHz, 8 kHz.

a. _____

b. _____

c. _____

d. _____

4 marks

Question 5

Identify the changes in the mix in the second part of each of the band recording excerpts.

a. _____

b. _____

c. _____

d. _____

4 marks

Question 6

Identify the kind of digital audio processing that is applied to the second part of this drum excerpt.

1 mark

Question 7

Identify the kind of digital audio processing that is applied to the second part of this piano excerpt.

1 mark

Question 8

What type of filter has been applied to the second part of this drum excerpt?

1 mark

Question 9

The following vocal excerpt has two parts. Both parts use the same type of effect.

a. What effect has been used in both parts?

1 mark

b. What parameter has been changed in the second part?

1 mark

c. In what way has the parameter been changed?

1 mark

Question 10

Identify the kind of digital audio processing that is applied to the second part of this flute excerpt.

1 mark

Question 11

Identify the kind of digital audio processing that is applied to the second part of this clarinet excerpt.

1 mark

Question 12

What is the common name for the type of reverb that is used in this drum excerpt?

1 mark

Question 13

Identify two problems with the following voice recording, recorded on a DAW, and suggest a post-production solution for each.

problem 1 _____

solution _____

problem 2 _____

solution _____

4 marks

Question 14

What frequency band has been attenuated in the second part of this music excerpt?

1 mark

SECTION B**Question 1**

What is the most directional frequency range in a sound reinforcement system?

1 mark

Question 2

a. What is an active loudspeaker?

1 mark

b. When powering up a PA, what component should be turned on last?

1 mark

Question 3

a. Explain the difference between a balanced and unbalanced audio cable (not connector).

2 marks

b. Which of these cables is better for long cabling runs?

1 mark

Question 4

a. Explain the function of the gain/trim/input sensitivity potentiometer.

1 mark

b. Explain the difference between a shelf EQ and a sweepable/parametric EQ.

2 marks

Question 5

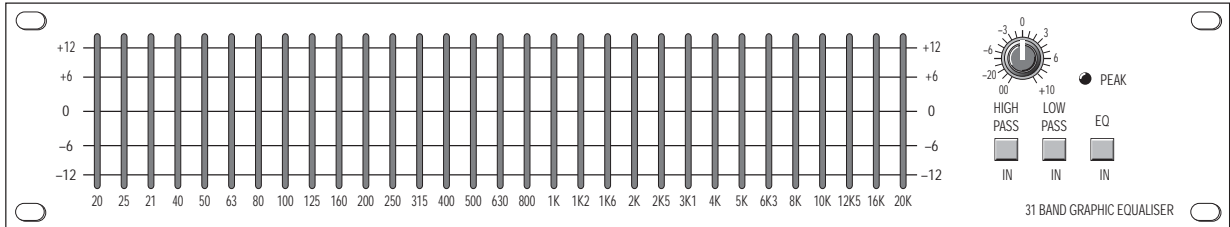
What is the name of the musical interval between 400 Hz and 800 Hz?

1 mark

Question 6

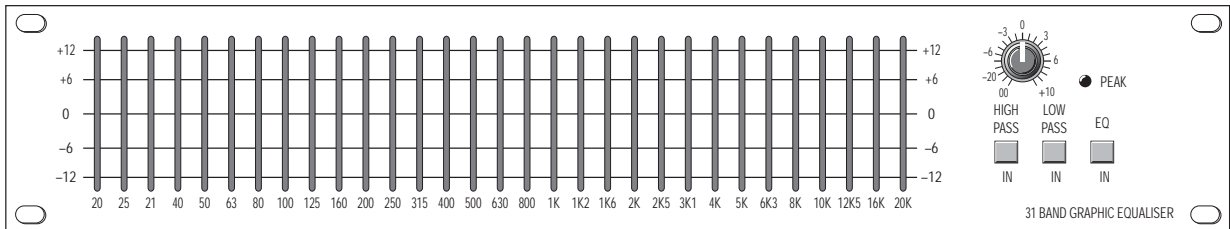
Indicate with crosses the following graphic equaliser settings. All faders must be labelled.

a. 6 dB cut @ 500 Hz



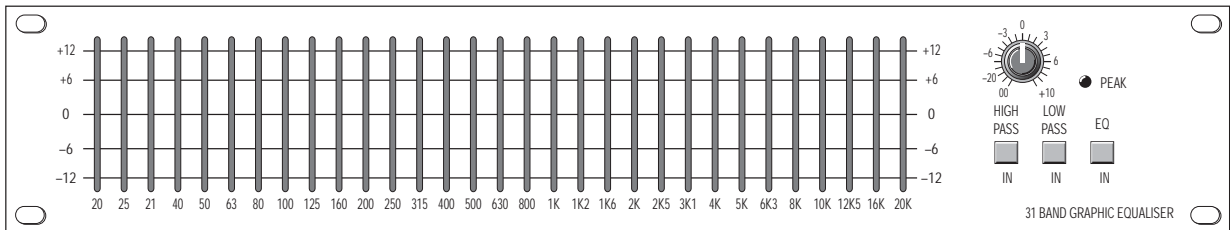
2 marks

b. remove 3 dB of vocal sibilance



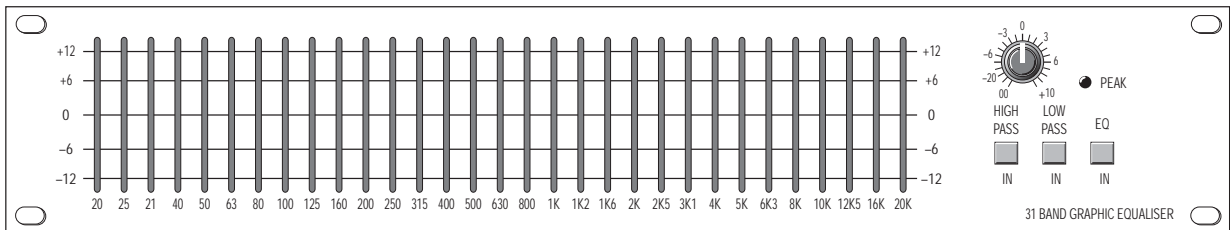
2 marks

c. 6 dB boost @ 1000 Hz



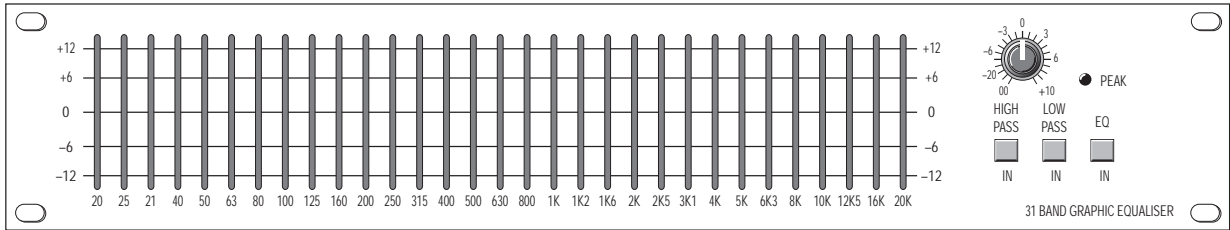
2 marks

d. -12 dB cut @ 12 kHz



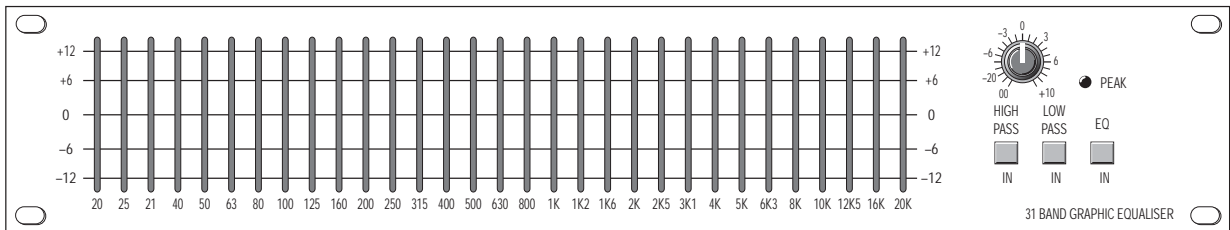
2 marks

e. -6 dB cut @ 400 Hz



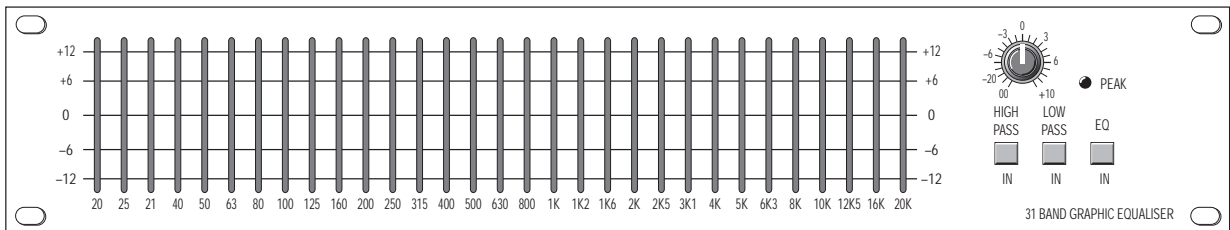
2 marks

f. -12 dB cut one octave below 400 Hz



2 marks

g. -3 dB cut one octave above 400 Hz



2 marks

Question 7

List four Occupational Health and Safety (OH&S) checks that you might make when setting up for a gig.

1. _____
2. _____
3. _____
4. _____

4 marks

Question 8

Why would you use a DI box to run a signal over a long distance?

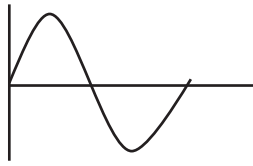
1 mark

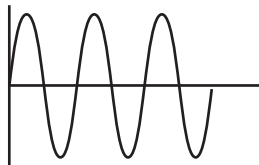
Question 9

The following diagrams are sine waves.

a. Tick (✓) the correct box.

Which waveform has the lower frequency?

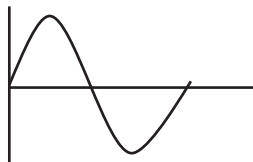


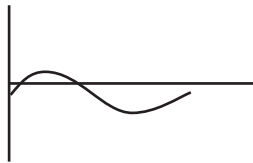


1 mark

b. Tick (✓) the correct box.

Which waveform has the smallest amplitude?





1 mark

Question 10

Match each scenario in the table to the most suitable microphone (A.–F.) from the list below.

Select a different microphone for each scenario.

- A. shotgun mic
- B. headset mic
- C. dynamic vocal mic
- D. large diaphragm condenser
- E. DI box
- F. PZM (boundary microphone)

Scenario	Microphone
location recording for a film shoot	
vocalist in a loud rock band	
synthesiser in a large rock gig	
aerobics fitness instructor	
voice-over booth in a recording studio	

5 marks

Question 11

You have been asked to set up the PA system for a visiting musician. The musician is a famous jazz bass player who will be performing solo. Place the following list of equipment in the correct order to achieve the best possible sound. Note that the mixing desk does not have inserts.

Equipment	Order
passive speaker	bass guitar
bass guitar	
multicore	
amplifier	
graphic equaliser	
DI box	
mixing desk	passive speaker

5 marks

Question 12

- a. Explain why Lee should not use a speaker lead to connect a guitar to an amplifier.

2 marks

- b. John has plugged an active DI box into a PA line that is working. There is now no sound coming from the DI box. The guitar is plugged in correctly and the guitar lead is working.

Identify the likely cause of this problem.

1 mark

Question 13

- a. Explain the importance of the earth pin on a 240 V plug.

1 mark

- b. Nick has joined three 200 W 8 ohms speakers in parallel.

What is the total impedance? Describe a potential problem when plugging the speakers into an amplifier.

2 marks

Question 14

- a. Emma is mixing down her session on a host-based DAW. She has inserted the same reverb plug-in on all 16 tracks and now the playback is stuttering.

Suggest **two** ways in which Emma could fix this problem.

2 marks

- b. What is a rendered or bounced plug-in effect?

1 mark

- c. In digital recording, what does a real-time plug-in do?

1 mark

Question 15

Give a brief description of the following terms used in recording sessions.

click track _____

scratch/guide track _____

overdub _____

mixdown _____

4 marks

Question 16

a. Explain the function of an insert socket on a live mixing console.

1 mark

b. Tick (✓) the correct box.

Which of the following is a dynamics processor?

A. reverb

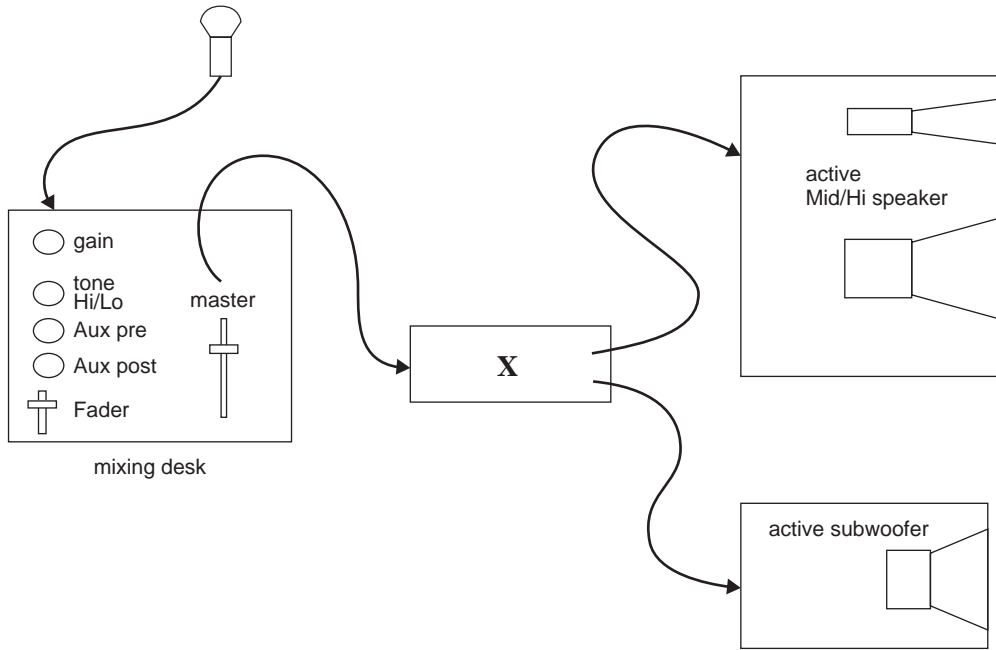
B. compressor

C. chorus

D. pitch shift

1 mark

Question 17



Tick (✓) the correct box.

What is the name of the piece of equipment labelled **X** on the diagram above?

- A. compressor
- B. active crossover
- C. reverb
- D. radio mic

1 mark

Question 18

Why is it advisable to switch off phantom power when you are not using it?

1 mark

Question 19

Explain the function of the mic/line button on the back of an active loudspeaker.

1 mark

Question 20

Explain why musicians prefer to use headphones in a recording situation.

1 mark

Question 21

- a. George is recording a snare drum. He has a microphone close to the drum and another microphone at the back of the room.

Give **two** reasons for the difference in the quality of the sound.

2 marks

- b. Tick (✓) the correct box.

Of the microphones listed below, which one are you **least** likely to use in a live situation?

- | | |
|------------------------------|--------------------------|
| A. small diaphragm condenser | <input type="checkbox"/> |
| B. headset radio mic | <input type="checkbox"/> |
| C. dynamic mic | <input type="checkbox"/> |
| D. handheld radio mic | <input type="checkbox"/> |

1 mark

Question 22

Tick (✓) the correct box.

Name the connectors found on either end of a balanced microphone cable.

- | | |
|----------------------------|--------------------------|
| A. RCA to mini jack | <input type="checkbox"/> |
| B. male XLR to male XLR | <input type="checkbox"/> |
| C. male XLR to female XLR | <input type="checkbox"/> |
| D. jack (TS) to female XLR | <input type="checkbox"/> |

1 mark

Question 23

For each of the indicated controls (1–5) on the channel strip diagram, give a description and an example of a typical application.



- 1. Ø button _____
typical application _____
- 2. HF knob _____
typical application _____
- 3. Aux 1 pre knob _____
typical application _____
- 4. 1–2 button _____
typical application _____
- 5. PFL button _____
typical application _____

10 marks