



Victorian Certificate of Education 2004

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures										
Words										

VCE VET MUSIC INDUSTRY (Technical production) Aural and written examination

Friday 29 October 2004

Reading time: 3.00 pm to 3.15 pm (15 minutes)

Writing time: 3.15 pm to 4.45 pm (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	7	7	25
B	28	28	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 11 pages.
- Answer **all** questions in the spaces provided.
- Audio compact disc will run continuously throughout Section A of the examination. The audio compact disc will run for 23 minutes 17 seconds.

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.
- All written responses must be in English.

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

SECTION A

All excerpts for Questions 1–4 will have unaffected sound then a signal processor applied (for example, dry vocal, then vocal with effects).

Question 1

What signal processor is being applied to this **guitar** excerpt?

1 mark

Question 2

Describe the ways in which the parameters have been set to the following guitar excerpts.

a. _____

b. _____

2 marks

Question 3

Identify the two signal processors used on the following two guitar excerpts.

a. _____ b. _____

2 marks

Question 4

What signal processor is being applied to the following two **vocal** excerpts?

a. _____ b. _____

2 marks

Question 5

Identify the frequencies you hear from the choices below.

(50 Hz, 125 Hz, 500 Hz, 1 kHz, 4 kHz, 8 kHz)

a. _____ b. _____ c. _____ d. _____

4 marks

Question 6

Identify the following sound wave types from the choices below.

(sine, sawtooth, square)

a. _____ b. _____

2 marks

Question 7

This excerpt of a recording was taken from a live demonstration CD of a Melbourne cover band. Answer the following questions regarding the recording issues. **(Audio not available)**

- i. Identify three errors of the **live mixing process** and identify how they can be rectified.

Identify errors**Identify solutions**

a. _____

b. _____

c. _____

- ii. Identify three errors of the **recording process** and identify how they can be rectified.

Identify errors**Identify solutions**

a. _____

b. _____

c. _____

6 + 6 = 12 marks

**END OF SECTION A
TURN OVER**

SECTION B

Question 1

a. What is the frequency range of the human ear?

b. What is the fundamental frequency range of a 4 string bass?

1 + 1 = 2 marks

Question 2

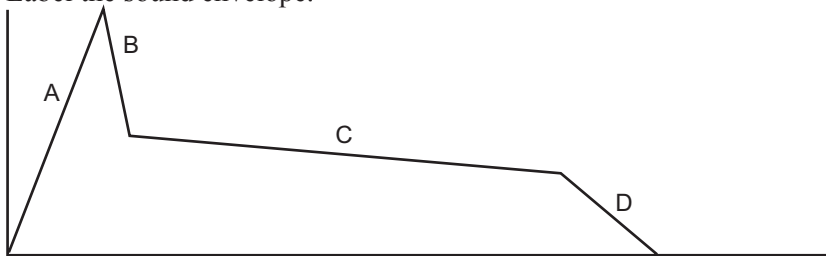
What are the symbols for the following terms?

frequency _____ decibel _____

2 marks

Question 3

Label the sound envelope.



A _____

B _____

C _____

D _____

4 marks

Question 4

a. Draw the following three wave types.

sine



sawtooth



square



3 marks

b. Identify an instrument for which each of the following wave types is predominant.

sine _____

sawtooth _____

square _____

3 marks

Question 5

Describe each of the following editing functions.

normalise _____

cross fade _____

4 marks

Question 6

What is the sampling rate for CDs?

1 mark

Question 7

Describe two procedures in mixing down the snare drum of a drum kit. Use the headings to assist your description.

Signal processors (for example, reverb)

The effect of the procedure

i. _____

ii. _____

Equalisation (for example, boost 50 Hz, decrease 50 Hz)

The effect of the procedure

i. _____

ii. _____

8 marks

Question 8

When compressing a signal, define the meaning of the following terms.

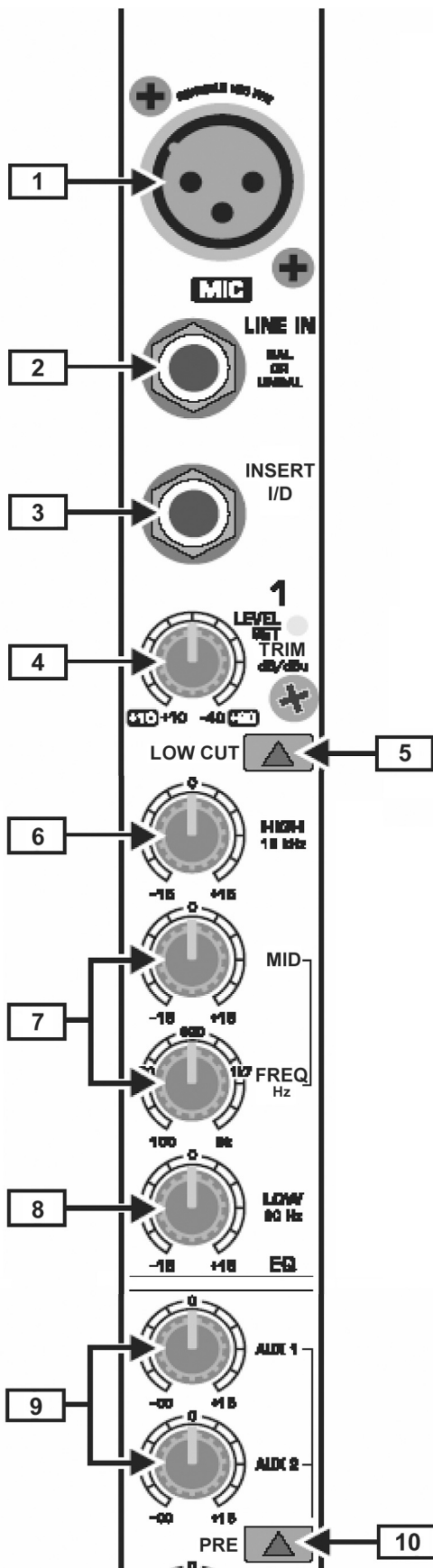
ratio _____

threshold _____

2 marks

Question 9

What is the function of components 3, 4, 5, 7 and 10 on this mixing console?



(3) INSERT _____

(4) TRIM _____

(5) LOW CUT _____

(7) MID/FREQ _____

(10) PRE _____

5 marks

Question 10

Describe the difference between gain and volume.

2 marks

Question 11

List two devices you would connect to auxiliaries.

i. _____ ii. _____

2 marks

Question 12

What is the difference between a graphic and parametric equaliser (EQ)?

2 marks

Question 13

If you are producing an unwanted distorted signal, what would you adjust to rectify this situation?

1 mark

Question 14

What is 'phantom power' and when is it required?

2 marks

Question 15

Where could you connect an external compressor unit to a mixing console?

1 mark

Question 16

How does an enabled PRE fade switch on a mixing console affect an auxiliary unit?

1 mark

SECTION B – continued

Question 17

Describe the difference between a balanced and an unbalanced connector.

2 marks

Question 18

You are in the middle of a session and while trying to record a guitar track you cannot hear the signal even though the meters are indicating otherwise. What could be **two** possible causes of the problem?

i. _____

ii. _____

2 marks

Question 19

What is the function of a crossover?

1 mark

Question 20

Describe the difference between an active and a passive speaker sound system.

1 mark

Question 21

List the order of equipment components, including cabling, in setting up a passive public address system from source to speakers.

Note: The unpowered mixing console already has an in-built graphic equaliser.

Passive system
1. Source: microphone
2. _____
3. _____
4. _____
5. _____
6. _____
7. Output: passive speakers

5 marks

SECTION B – continued
TURN OVER

Question 22

Describe the following terms.

watts _____

ohms _____

2 marks

Question 23

Explain why you should **not** use instrument cable to connect a power amp to speakers.

1 mark

Question 24

Identify an electrical concern when operating a large sound and light system.

1 mark

Question 25

You have been asked to engineer a rock band and the public address system is occasionally experiencing high frequency feedback. Describe three methods of overcoming this problem.

i. _____

ii. _____

iii. _____

3 marks

Question 26

Describe two advantages and two disadvantages of using a condenser microphone.

advantages _____

disadvantages _____

2 + 2 = 4 marks

Question 27

If two signals mixing the same source are out of phase, what is the effect on the sound and how is this caused?

2 marks

Question 28

A four piece band with vocals will perform in a long school hall with loud air conditioning and all hard surfaces. As the sound engineer, describe how these issues will alter your mixing procedures.

Long hall _____

Air conditioning _____

Hard surfaces _____

6 marks