**Victorian Certificate of Education
2005**

**STUDENT NUMBER**

Letter

Figures

Words

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

**Friday 18 November 2005**

Reading time: 11.45 am to 12.00 noon (15 minutes)
Writing time: 12.00 noon to 1.30 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 12 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 20 minutes 34 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, 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

*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 two guitar excerpts.

**a.** _____

**b.** _____

2 marks

### Question 3
Identify the two signal processors used on the following two vocal excerpts.

**a.** _____  **b.** _____

2 marks

### Question 4
Identify and describe two editing processes that have been applied in the mixdown of the snare drum of the drum kit. (Note: editing processes may include compression, equalisation, pitch, modulation, reverb and delay.)

identify                                             describe

**a.** _____    _____

_____

**b.** _____    _____

_____

4 marks

**Question 5**

*This single excerpt will have the original recording then an altered recording.*
*The original and altered version will be repeated **three times**.*
*(For example: 1st original, altered, 2nd original, altered, 3rd original, altered.)*

The following **excerpt of music** has five modifications. Identify the five modifications and explain how they have been modified in the **mixdown**.

**a.** _____

_____

**b.** _____

_____

**c.** _____

_____

**d.** _____

_____

**e.** _____

_____

$5 \times 2 = 10$ marks

**Question 6**

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 7**

Identify the following wave types from the choices below.

sine, sawtooth

**a.** _____     **b.** _____

2 marks

Total 25 marks

**END OF SECTION A**
**TURN OVER**

## SECTION B

### Question 1

**a.**    Identify an octave above 200 Hz from the choices below.

220 Hz, 300 Hz, 400 Hz, 2000 Hz

_____

**b.**    What pitch letter is 440 Hz?_____

2 marks

### Question 2

What are the terms for the following?

SPL  _____          kHz  _____

2 marks

### Question 3

Identify the wave types for the following instruments.

flute  _____      clarinet  _____      trumpet  _____

3 marks

### Question 4

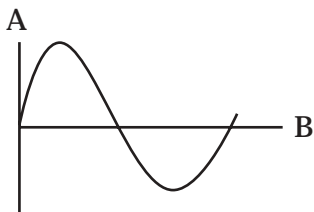Describe each of the following sound editing functions.

DeEsser  _____

_____

Noise Gate  _____

_____

4 marks

### Question 5

The diagram provided is a representation of a digital sound wave. Label the A and B axes.



A  _____          B  _____

2 marks

**Question 6**

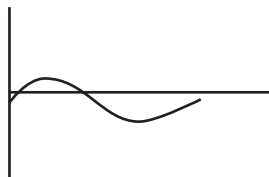Explain the following terms.

amplitude _____

_____

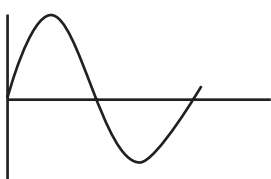sibilance _____

_____

2 marks

**Question 7**

Identify an advantage and a disadvantage of digital and analogue recordings.

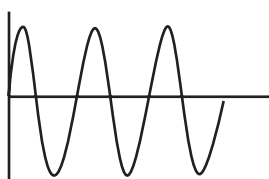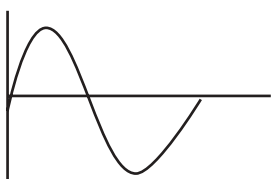|  | digital recording | analogue recording |
|---|---|---|
| advantage |  |  |
| disadvantage |  |  |

4 marks

**Question 8**

What do these two sine wave diagrams represent?

a. _____

b. _____

2 marks

**Question 9**

Identify the standard industry bit depth for CDs from the choices below.

4 bit, 8 bit, 16 bit, 32 bit

_____

1 mark

**Question 10**

Describe one advantage and one disadvantage of higher sample rates.

advantage _____

_____

disadvantage _____

_____

4 marks

**Question 11**

Identify two copyright considerations when re-recording a song.

_____

_____

_____

_____

2 marks

## Question 12

What is the function of each of the components 9, 10, 12, 14, 16, 17 on this mixing console?
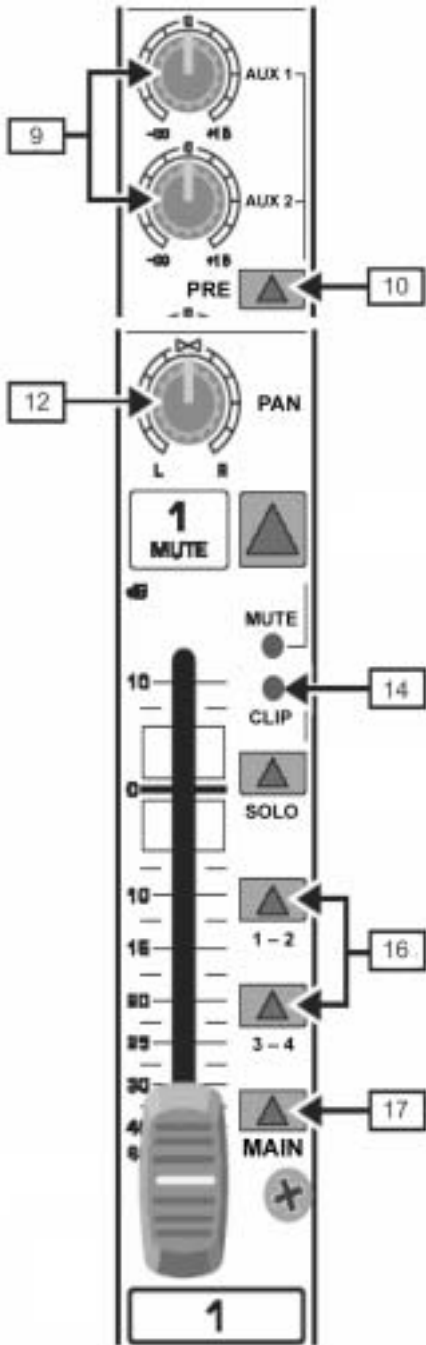
9. AUX _____

_____

_____

_____

10. PRE _____

_____

_____

_____

12. PAN _____

_____

_____

_____

14. CLIP _____

_____

_____

_____

16. 1–2, 3–4 _____

_____

_____

_____

17. MAIN _____

_____

_____

_____

6 marks

**Question 13**

List two signal processor units that connect to auxiliary sends.

**a.** _____     **b.** _____

2 marks

**Question 14**

**a.** What are sweepable mids?

_____

_____

**b.** Describe how sweepable mids are operated.

_____

_____

2 marks

**Question 15**

**a.** What is the function of a LOW pass filter?

_____

**b.** Give an example of when a LOW pass filter could be applied.

_____

2 marks

**Question 16**

**a.** Define 'phantom power'. _____

_____

**b.** List two pieces of equipment that use phantom power.

**i.** _____     **ii.** _____

1 + 2 = 3 marks

**Question 17**

When operating a reverb unit, explain what the following terms refer to.

mix _____

_____

_____

decay _____

_____

_____

2 marks

**Question 18**

Describe the function of compression and limiting.

compression _____

_____

_____

limiting _____

_____

_____

4 marks

**Question 19**

Explain the meaning of the term 'dynamic range', as it applies when setting the levels of a mixing console.

_____

_____

_____

2 marks

**Question 20**

Identify the accepted safe decibel level as set down by the Victorian WorkCover Authority from the choices below.

85 db for 8 hrs, 100 db for 8 hrs, 115 db for 8 hrs, 120 db for 8 hrs

_____

1 mark

**Question 21**

Describe what a 3 way speaker system consists of.

_____

_____

_____

1 mark

**Question 22**

You have been asked to set up and operate a public address system (PA) for a rock band. List the following components in order of signal flow.

microphone, speakers, stereo graphic, poweramp, mixer, effects unit

| Public address system |
|---|
| 1. Microphone |
| 2. _____ |
| 3. _____ |
| 4. _____ |
| 5. _____ |
| 6. _____ |

5 marks

**Question 23**

Describe how you would control the levels of fold backs on stage using your mixing console.

_____

_____

1 mark

**Question 24**

Describe the process in equalising a room.

_____

_____

_____

_____

1 mark

**Question 25**

A cover band uses a minidisk sequencer as an extension of the band and they require a click to be sent to the drummer so that they do not play out of time. Describe the procedure so that the audience does not hear the click. (Note: the minidisk sequencer has click on the right channel and music on the left channel.)

_____

_____

_____

_____

_____

2 marks

**SECTION B** – continued

**Question 26**

Identify two important features of each of the following microphone types.

dynamic _____

_____

condenser _____

_____

4 marks

**Question 27**

You have been asked to engineer a vocal and acoustic guitar duo and the public address system is experiencing an occasional overpowering low resonance frequency. Describe three methods of overcoming this problem.

**a.** _____

_____

_____

**b.** _____

_____

_____

**c.** _____

_____

_____

3 marks

**Question 28**

You have recorded a vocalist in your studio, but after the session you listen back and find that the tracks are too dull. Before you make the vocalist redo the take, describe two methods for each of the following recording procedures that you could use to create a sharper and clearer sound to the track.

setup and equipment modifications

**a.** _____

_____

**b.** _____

_____

acoustic modifications

**a.** _____

_____

**b.** _____

_____

mixing procedures

**a.** _____

_____

**b.** _____

_____

6 marks

Total 75 marks

**END OF QUESTION AND ANSWER BOOK**

Victoria
The Place To Be