



Victorian Certificate of Education 2013

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

VCE VET MUSIC TECHNICAL PRODUCTION

Aural and written examination

Tuesday 19 November 2013

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

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	10	10	25
B	31	31	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.
- An audio compact disc will run continuously throughout Section A of the examination. The audio compact disc will run for 21 minutes 45 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.
- Answer **all** questions in the spaces provided.
- 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 1–10**, audio excerpts are played twice.

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

Question 1 (3 marks)

Identify which of the following waveforms is being played: sine, square, sawtooth, triangle, white noise, pink noise.

a. _____

b. _____

c. _____

Question 2 (4 marks)

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

a. _____

b. _____

c. _____

d. _____

Question 3 (3 marks)

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 4 (2 marks)

The following vocal excerpt indicates a problem with its recording.

- a. Identify the problem. 1 mark

- b. Suggest a way of solving the problem in post-production. 1 mark

Question 5 (1 mark)

Identify the kind of digital audio processing that has been applied to this excerpt.

Question 6 (1 mark)

The following piano excerpt has two parts.

Name the effect that has been used in the second part.

Question 7 (1 mark)

The following piano excerpt has two parts.

Name the effect that has been used in the second part.

Question 8 (3 marks)

The following djembe 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 9 (2 marks)

The following music excerpt has had a filter applied to it.

- a. What kind of filter has been used? 1 mark

- b. What parameter has been altered to create the effect? 1 mark

Question 10 (5 marks)

- a. The following song excerpt is in two parts.
Describe which aspect of the mix has changed in the second part. 1 mark

- b. The following song excerpt is in two parts.
Describe which aspect of the mix has changed in the second part. 1 mark

- c. The following song excerpt is in two parts.
Describe which aspect of the mix has changed in the second part. 1 mark

- d. The following song excerpt is in two parts.
Describe which aspect of the mix has changed in the second part. 1 mark

- e. The following song excerpt is in two parts.
Describe which aspect of the mix has changed in the second part. 1 mark

SECTION B

Question 1 (1 mark)

Explain the function of the panorama or pan pot knob on a mixing desk.

Question 2 (3 marks)

- a. Explain the function of the high-pass filter on a mixing desk's input channels. 1 mark

- b. Give **two** examples of uses for the high-pass filter. 2 marks

Question 3 (4 marks)

This question relates to a mixing console used in a live gig.

- a. Describe a situation in which you would assign a channel to a group fader. 1 mark

- b. As well as using the channel assign button, what other adjustment needs to be made to assign the input to one group only? 1 mark

- c. Give **two** examples of why you may need to use the 48 V button on the mixing desk. 2 marks

Question 4 (1 mark)

Tick (✓) the correct box.

Which cable from the list below would be used to group or loom together multiple microphone cables?

- A. power loom
- B. HDMI cable
- C. multicore
- D. Speakon

Question 5 (4 marks)

- a. Gen has bought a very long guitar lead to plug her synthesiser into a mixing desk at the rear of the room.

Name **two** possible negative effects this may have on sound quality.

2 marks

- b. What piece of sound equipment should you use to plug a guitar into a mixing desk at the rear of the room?

1 mark

- c. How would this piece of equipment improve the audio quality?

1 mark

Question 6 (1 mark)

How many watts can an Australian GPO deliver?

Question 7 (10 marks)

You are setting up for a battle of the bands competition in the school hall. You have specific responsibilities with regard to this set-up.

- a. Give **two** basic safety checks that you would perform before using a power lead to set up a sound system.

2 marks

- b. Identify **three** methods of minimising the risk of hearing damage when setting up and operating the sound.

3 marks

- c. You have been instructed to use power boards in your set-up.
What is the advantage of doing this?

1 mark

- d. List **four** pieces of information that you would include on your microphone input list. 4 marks

Question 8 (1 mark)

Tick (✓) the correct box.

An iPod or mini jack plug would be correctly identified as

- A. an XLR plug.
- B. an RCA plug.
- C. a 6.5 mm stereo jack.
- D. a 3.5 mm stereo jack.

Question 9 (2 marks)

Dennis is powering down his friend's home studio.

What should he turn off first and why?

Question 10 (3 marks)

- a. Tick (✓) the correct box.

Which piece of equipment would be best for removing feedback from a live sound system? 1 mark

- A. a reverb unit
- B. a compressor
- C. a graphic equaliser
- D. a valve microphone pre-amplifier

- b. Briefly describe how you would remove feedback. 1 mark

- c. Which filter could be applied to remove unwanted high frequencies? 1 mark

Question 11 (3 marks)

- a. How is recording quality improved when you record at the highest bit depth possible? 1 mark
-
- b. What is the highest frequency that can be accurately recorded when sampling at 96 kHz? 1 mark
-
- c. What is the name given to the relationship between a high frequency and its safe sampling rate? 1 mark
-

Question 12 (1 mark)

Tick (✓) the correct box.

Which piece of equipment would **not** be inserted over a vocal channel?

- A. a de-esser
- B. an equaliser
- C. a compressor
- D. an active 3-way crossover

Question 13 (4 marks)

You have been asked to assist with the organisation of a show with eight bands performing over three hours. You have been given documentation for the day.

Name **four** pieces of information that would be provided in the documentation to help the show run to time.

Question 14 (2 marks)

Give **two** reasons why audio power cables and dimmed-lighting power cables should be kept separate.

Question 15 (2 marks)

If you had to use an instrument microphone for vocals, what equalisation adjustments would need to be made at the mixing desk? Give **two** examples.

Question 16 (1 mark)

Why would you always ensure your FOH mixing desk is plugged into the same power circuit as all stage audio power?

Question 17 (1 mark)

Tick (✓) the correct box.

Which one of the following would most likely require phantom power?

- A. a passive DI box
- B. a hanging choir microphone
- C. a vocal microphone for a loud rock band
- D. a general-purpose instrument microphone

Question 18 (4 marks)

- a. Identify the frequency range for each of the following speakers. 3 marks

woofer _____

horn _____

subwoofer _____

- b. What is the most directional frequency band? 1 mark

Question 19 (3 marks)

- a. In digital audio recording, what does the term 'latency' refer to? 1 mark

- b. What are **two** ways of dealing with latency issues without updating any computer equipment? 2 marks

Question 20 (1 mark)

Explain the term 'PAD-20 dB' in relation to microphones and DI boxes.

Question 21 (2 marks)

- a. What is the function of the threshold knob on an audio compressor? 1 mark
-

- b. What is another name for high-compression ratios such as 100:1 or infinity:1? 1 mark
-

Question 22 (1 mark)

Tick (✓) the correct box.

You have been asked to record a round-table conference. There are seven participants, but only one microphone input on the hard disk recorder. The recorder does have phantom power.

Which one of the following is the appropriate microphone for the task?

- A. an instrument condenser
- B. a dynamic vocal microphone
- C. a PZM boundary microphone
- D. a small-diaphragm cardioid microphone

Question 23 (2 marks)

When emailing sound files, a high-quality wave file is converted to a low-quality file.

Give **two** examples of audible compromises that can occur in this process.

Question 24 (2 marks)

- a. What is the name given to an automated fade between two audio tracks? 1 mark
-

- b. When could this effect be used? 1 mark
-

Question 25 (3 marks)

- a. Jim is organising a large PA system for his outdoor event. The total current drawn by his equipment is 11 amps. The venue has only one standard 240 volt GPO for audio power. Explain whether this will be enough.

1 mark

- b. The weather forecast for the event predicts rain. What speaker system should Jim consider using and why?

2 marks

Question 26 (1 mark)

Jessica has blown a fuse on her guitar amplifier. She cannot find the recommended 2 amp fuse and uses a 5 amp fuse to get it working again.

What is a potential risk with this quick fix?

Question 27 (2 marks)

When Deb is setting up the PA, she turns down the microphone fader for the lead vocal. This results in the stage level of the singer's monitor (foldback) also turning down. The equipment has been tested and is working.

Identify the problem and how Deb should fix it.

Question 28 (2 marks)

Give **two** reasons why it is important to set the gain structure before carrying out a mix.

Question 29 (1 mark)

Give an example of equipment that you would transport in a road case and explain why.

Question 30 (3 marks)

What issues may be overcome by rehearsing in a pre-production environment before going into the recording studio?

Question 31 (4 marks)

You are doing a sound check on a drum kit. The snare has a very bad ringing tone. List **four** methods for correcting this.
