2006 VCE VET Music Industry (Tech Prod) GA 2: Aural and written exam

SPECIFIC INFORMATION
Section A
Question 1

Marks	0	1	Average
%	70	30	0.3

Chorus

Question 2

Marks	0	1	2	Average
%	11	27	61	1.5

2a.
Reverberation (reverb)

2b.
Reverberation time (reverb time, decay time, RT60)

Question 3

Marks	0	1	2	Average
%	88	9	2	0.2

Swept low-pass filter (low-pass filter sweep)

Students who did not refer to 'low pass' received only one mark.

Question 4

Marks	0	1	2	Average
%	8	82	11	1.1

4a.
Time compression (speeding up without pitch shift)

4b.
Delay

Question 5

Marks	0	1	2	3	4	Average
%	65	13	20	1	1	0.6

5a.
The two parts are different because of the microphone position: close-miking and far- (room) miking respectively.

5b.
The two parts are different because a noise gate (gating) has been applied.)

Question 6

Marks	0	1	2	3	4	Average
%	8	63	22	5	1	1.3

6a.
The vocals have had delay added.

6b.
An alternate drum beat has been used.

6c.
The vocals have been double tracked.

6d.
The section has had a drum fill added.

Question 7

Marks	0	1	2	3	4	Average
%	12	18	15	23	32	**2.5**

7a.
125 Hz

7b.
8 kHz

7c.
1 kHz

7d.
4 kHz

Question 8

Marks	0	1	2	3	4	5	6	Average
%	25	27	21	13	10	1	3	**1.7**

8a.
Error
  - Loop is the wrong length

Solution
  - End of audio region should be shortened.

Students may have nominated an editing tool such as 'trim', 'cut' or 'separate region and delete'. If the answer referred to the length only without specifying that the end should be shortened, only one mark was given.

8b.
Error
  - Click

Solution
  - Cut out (delete) the click, move the remaining audio regions together and cross-fade between the regions (answers that referred only to deleting were awarded one mark).
  - Use a 'pencil' tool to re-draw the waveform (if the tool only was given, one mark was awarded).

Section B
Question 1

Marks	0	1	Average
%	28	72	**0.7**

880 Hz

Question 2

Marks	0	1	2	Average
%	29	36	36	**1.1**

Because the harmonic content and the amplitude envelope are different.

Question 3

Marks	0	1	Average
%	40	60	**0.6**

Hyper-cardioid

Question 4

Marks	0	1	Average
%	17	83	**0.9**

300 Hz

Question 5

Marks	0	1	2	3	4	Average
%	32	8	27	8	25	**1.9**

5a.
To blend/balance between wet (effected) and dry (uneffected)

5b.
Number of repeats, amount of signal sent from output to input

Question 6

Marks	0	1	2	Average
%	85	13	2	**0.2**

24 kHz

Question 7

Marks	0	1	2	Average
%	19	40	41	**1.2**

- bit depth: 16 bits
- sample rate: 44.1 kHz

Question 8

Marks	0	1	2	3	Average
%	33	47	12	8	**1.0**

8a.
Click

8b.
Any of:
- re-draw the waveform
- de-click plug in
- cut and cross-fade.

Question 9

Marks	0	1	2	Average
%	65	13	22	**0.6**

Edits exist as instructions for playing back audio files, but the original audio files are not altered.

Question 10

Marks	0	1	2	3	4	Average
%	26	8	63	0	2	**1.5**

10ai.
144 kilobytes per second (kB/s)

10aii.
192 kilobytes per second (kB/s)

10bi.
96 kHz system

10bii.
24-bit system

Question 11

Marks	0	1	2	3	4	5	6	Average
%	4	3	17	12	58	1	4	**1.5**

11a.
Dragging the mouse pointer across the waveform display plays the audio at variable speed and direction.

11b.
Changes the volume of the original recording from zero to full amplitude (fade in) or from full amplitude to zero (fade out).

11c.
Fades out one audio region (segment/file/part) while another on the same track fades in.

Question 12

Marks	0	1	2	3	Average
%	20	37	31	12	**1.4**

- direct
- early reflections
- late reflections (or diffuse or main body of the reverb)

Question 13

Marks	0	1	2	Average
%	93	4	3	**0.1**

The time taken for reverb to drop in volume by 60 dB.

Question 14

Marks	0	1	2	3	4	5	6	Average
%	6	10	13	15	18	11	27	**3.7**

14a.
Both of:
- to obtain the maximum gain before feedback across the frequency spectrum
- to reduce the effects that room resonance might have on the tonal quality of sounds amplified by the public address system.

14b.
Either of:
- open one or more mic channels, turn the PA volume up to the threshold of feedback and then use the graphic equaliser to identify the feedback frequencies and attenuate them
- use a noise generator and spectrum analyser to identify the room resonances and attenuate them with the graphic equaliser.

Question 15

Marks	0	1	Average
%	29	71	**0.7**

48 volts (or V DC)

Question 16

Marks	0	1	2	Average
%	46	24	30	**0.8**

Impedance matching, different operating levels

Question 17

Marks	0	1	2	3	Average
%	35	20	14	32	**1.4**

17a.

Phase cancellation (at certain frequencies)

17b.

Reposition one of the mics, reverse (invert) the phase of one of the mics.

Question 18

Marks	0	1	Average
%	15	85	**0.9**

Large-diaphragm condenser

Question 19

Marks	0	1	2	3	4	Average
%	34	6	28	12	19	**1.8**

19a.

Rise – because the speed of sound increases with air temperature.

19b.

Fall – because the strings expand as the temperature increases.

Question 20

Marks	0	1	Average
%	25	75	**0.8**

Phantom power is not turned on for the condenser mic channel.

Question 21

Marks	0	1	2	3	4	5	Average
%	6	9	21	26	12	27	**3.1**

   1. Low cut/high pass filter – cuts frequencies below 75 Hz.

   2. Gain pot – adjusts the level of incoming sound sources so as to get the optimum level running through the desk.

   3. Pre fader Aux – send level is independent of the channel fader.

   4. Post fader Aux – send level is dependant on the channel fader.

   5. PFL – monitor/meter/solo the level of the channel's signal independent of the channel fader.

Questions 22–23

Marks	0	1	2	3	Average
%	12	16	35	36	**2.0**

Question 22

Any of:

- mixing console
- mixing desk
- mixer
- mixing board.

Question 23

Use the pre-fader auxiliary sends.

Question 24

Marks	0	1	2	3	Average
%	34	39	22	5	**1.0**

All of:

- active requires mains power and passive does not
- active has crossover before amps and passive has crossover after the amplifier
- active has amplifiers built in and passive requires external amplification.

Questions 25–26

Marks	0	1	2	Average
%	33	49	18	**0.9**

Question 25

Damage may occur because excessive current is required from the amplifier by the speaker.

Question 26

8 hours

Question 27

Marks	0	1	2	3	Average
%	41	11	8	40	**1.5**

27a.

Gate

27b.

The gate requires a wider dynamic range to operate effectively. Compressing the signal first would reduce the dynamic range, making it difficult for the gate to operate.

Questions 28–29

Marks	0	1	2	3	Average
%	42	23	15	21	**1.2**

Question 28

Threshold

Question 29

After the signal passes the threshold, each three dB of input level is reduced to one dB of output level.

Question 30

Marks	0	1	2	3	4	5	Average
%	2	10	11	7	1	70	**4.0**

    a. acoustic guitar
    b. DI
    c. mixer
    d. stereo graphic
    e. power amp
    f. speakers