

2006 Music

Higher – Sound Engineering and Production

Finalised Marking Instructions

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SECTION 1

Marks

In this section the questions are related to specific concepts that feature in excerpts of recorded music.

QUESTION 1

Read through the list of features below before hearing the music.

Tick **four** features which are present in the music. You will hear the music **twice** with a pause of ten seconds between playings and a pause of twenty seconds at the end before the next question starts.

- | | | | |
|-------------------------------------|---------------------|-------------------------------------|----------------------------|
| <input checked="" type="checkbox"/> | distortion (effect) | <input type="checkbox"/> | restricted frequency range |
| <input type="checkbox"/> | feedback | <input checked="" type="checkbox"/> | solo break |
| <input checked="" type="checkbox"/> | pitch bend | <input type="checkbox"/> | phasing |
| <input type="checkbox"/> | saxophone | <input type="checkbox"/> | pitch shifter |
| <input checked="" type="checkbox"/> | keyboard | | |

Here is the music for the first time.

Here is the music for the second time.

Total marks Question 1: (8)

QUESTION 2

Read through the list of features below before hearing the music.

Tick **four** features which are present in the music. You will hear the music **twice** with a pause of ten seconds between playings and a pause of twenty seconds at the end before the next question starts.

- | | | | |
|-------------------------------------|--------------|-------------------------------------|-----------------|
| <input type="checkbox"/> | fade in | <input checked="" type="checkbox"/> | guitar |
| <input checked="" type="checkbox"/> | introduction | <input checked="" type="checkbox"/> | stereo |
| <input type="checkbox"/> | key change | <input checked="" type="checkbox"/> | chorus (effect) |
| <input type="checkbox"/> | masking | <input type="checkbox"/> | distortion |
| <input type="checkbox"/> | sibilance | | |

Here is the music for the first time.

Here is the music for the second time.

Total marks Question 2: (8)

QUESTION 3

Marks

This question is concerned with identifying sound engineering faults.

- (a) (i) Listen to this **solo** drum-kit track. There are faults in the recording. Tick **two** boxes to identify the faults.

- | | |
|--|--|
| <input checked="" type="checkbox"/> poor use of gate | <input type="checkbox"/> crosstalk |
| <input type="checkbox"/> low levels | <input type="checkbox"/> overload |
| <input type="checkbox"/> too much delay | <input checked="" type="checkbox"/> high frequency cut |

- (ii) Briefly describe a precaution that could be taken to correct each of these faults.

ensure levels are correctly set/monitor levels during recording

reposition microphones/check EQ settings

2 marks for each answer

You are reminded to answer both parts of the question.

Here is the music for the first time.

Here is the music for the second time.

8

- (b) Listen to this recording of an orchestra. The recording has **two** faults. Tick **two** boxes to identify the faults.

- | | |
|---|---|
| <input type="checkbox"/> frequency range is limited | <input type="checkbox"/> too much reverberation |
| <input type="checkbox"/> sibilance | <input checked="" type="checkbox"/> distortion |
| <input type="checkbox"/> too much chorus | <input checked="" type="checkbox"/> unbalanced stereo image |

Here is the music for the first time.

Here is the music for the second time.

4

QUESTION 3 (continued)

Marks

(c) Listen to this recording of a **solo** piano track. The recording has **two** faults.
Tick **two** boxes to identify the faults.

hum

popping and blasting

feedback

too much chorus

poor use of compression

too much reverberation

Here is the music for the first time.

Here is the music for the second time.

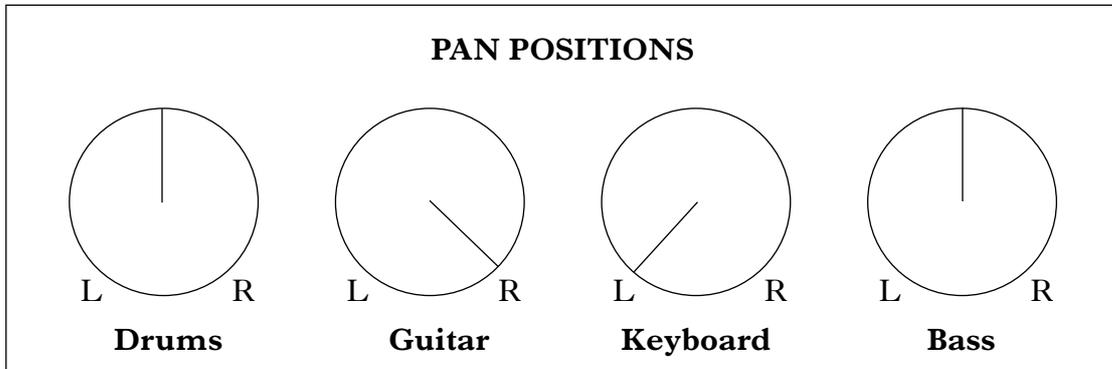
4

Total marks Question 3: (16)

QUESTION 4

Marks

- (a) Listen to this recording of drums, guitar, piano and bass. The instruments have been panned to certain positions in the stereo image. Show where the drums, guitar and bass are positioned by filling in the diagram of the pan controls for each instrument. The pan position of the keyboard has been completed as an example. (You will hear the music **once** only.)



Here is the music.

3

- (b) You will now hear another excerpt from the recording. A control, effect or process has been added to **two** instruments. Name the two controls, effects or processes used and the instrument each is applied to.

Control/Effect/Process: Noise Gate

Instrument: Drums

Control/Effect/Process: Chorus

Instrument: Guitar

Here is the music.

(You will hear the music **once** only.)

6

2 marks for the Control/Effect/Process

1 mark for the instrument

Total marks Question 4: (9)

QUESTION 5

Marks

This question is concerned with the use of controls, effects, processes and recording techniques.

- (a) Listen to two excerpts of the same piece of music. The **second** excerpt uses two controls, effects, processes or techniques. Tick **two** boxes to identify the controls, effects, processes or techniques heard in the **second** excerpt.

distortion

compression

chorus

echo

proximity effect

pitch shifter

Here is the first excerpt.

Here is the second excerpt.

4

- (b) Listen to two excerpts of the same piece of music. The **second** excerpt uses two controls, effects, processes or techniques. Tick **two** boxes to identify the controls, effects, processes or techniques heard in the **second** excerpt.

feedback

enhancer/exciter

fade in

low boost

panning

delay

Here is the first excerpt.

Here is the second excerpt.

4

QUESTION 5 (continued)

Marks

(c) Listen to two excerpts of the same piece of music. The **second** excerpt uses two controls, effects, processes or techniques. Tick **two** boxes to identify the controls, effects, processes or techniques heard in the **second** excerpt.

panning

fade out

phasing

high equalisation cut

gate

distortion

Here is the first excerpt.

Here is the second excerpt.

4

Total marks Question 5: (12)

[END OF SECTION 1]

SECTION 2

Marks

In this section the questions are related to a variety of features that occur in longer excerpts of recorded music.

QUESTION 6

This question is in two parts, (a) and (b).

It concerns **two** versions of the song “Take Me to the River” recorded by different artists.

You now have **one minute** to read through the whole question.

(a) Listen to two versions of the song recorded by different artists. Compare both recordings and, as you listen, comment on the concepts used under the headings given in **[GRID 1]**.

This grid is for rough work and will not be marked.

Both versions will be played **twice** with a pause of **fifteen** seconds between playings.

After the two playings of the music you will be given **three minutes** to copy/re-arrange your answers in **[GRID 2]**.

Here is excerpt 1 for the first time. **Remember to write in Grid 1.**

Here is excerpt 2 for the first time.

Here is excerpt 1 for the second time.

Here is excerpt 2 for the second time.

You will now have **three minutes** to complete your answers in **[GRID 2]**.

12

[GRID 1]

	Excerpt 1	Excerpt 2
Controls, effects & processes		
Recording/ production techniques		
Other musical features/ instrumentation/ structure		

[GRID 2]

	Excerpt 1	Excerpt 2
Controls, effects & processes	<p>Light use of reverb on vocal, bass, guitar and keyboards. Moderate use of reverb on brass and strings.</p> <p>Heavy compression on mix especially vocals.</p> <p>Moderate distortion on guitar, chorus on electric piano, little use of effects elsewhere.</p> <p>Brass panned mostly right, strings panned mostly left, others in centre with narrow stereo spread.</p>	<p>Lot of reverberation on drums and some keyboards. Moderate use of reverb, on other instruments and vocals.</p> <p>Compression on vocals and bass. Moderate distortion on guitar. Chorus on keyboards in middle eight. Delay on guitar and keyboard, in middle eight and start of verse 3.</p> <p>Vocals, bass panned central. Drums, keyboards have wide stereo image. Guitar mostly to right.</p>
Recording/production techniques	<p>Mix: vocal up front, bass/drums slightly behind, keyboard/guitar mixed in further back, strings and brass prominent by panning</p> <p>Use of close mic techniques.</p> <p>Limited dynamic range</p> <p>Narrow frequency range with bass prominent</p> <p>Some tape hiss at start, masked later on</p> <p>Excerpt fades at start of verse 3</p>	<p>Mix: Lead vocal back in mix. Drums and bass prominent, keyboards and guitar further back</p> <p>Clear mix, wide stereo image</p> <p>Use of close mic techniques</p> <p>Wide frequency range</p> <p>Wide dynamic range</p> <p>Excerpt fades out at start of verse 3</p>
Other musical features/instrumentation/structure	<p>Instruments/voices: Drums, Bass Guitar, Strings, Male Lead Vocal, Electric Guitar, Brass Section, Organ, electric piano</p> <p>Structure based on: Introduction, Verse 1, Chorus, Verse 2, Chorus, Middle Eight</p> <p>Texture—starts with drums, followed by bass/guitar/strings/electric piano. Strings come in at intro and then not until middle eight Brass from chorus onwards but not in middle eight</p> <p>Singer talks over introduction. Moderate tempo</p>	<p>Instruments/voices: Drums, Bass Guitar, Male Lead Vocal, Electric guitar, Organ, Other keyboard</p> <p>Structure based on: Introduction, Verse 1, Chorus, Verse 2, Extended Chorus, Middle Eight,</p> <p>Texture—starts with drums followed by bass and then keyboards. Sparse sound at start and during verses. Sustained keyboards use in choruses and middle eight.</p> <p>Slow tempo</p>

$\frac{1}{2}$ mark per item. Maximum of 4 marks per category

QUESTION 6 (continued)

Marks

(b) Listen to the versions once again and, using your notes for (a) above, comment briefly on the main **contrasts/differences** in production between the two versions of the song.

Both versions will be played once more with a pause of **one minute** at the end.

Here is the first excerpt.

Here is the second excerpt.

Contrasts/Differences in production
Different tempo
Different introductions, no spoken element in excerpt 2
1st excerpt uses real strings
1st excerpt uses real bass
2nd excerpt much wider stereo image
2nd excerpt wider frequency range
2nd excerpt wider dynamic range
Sparser sound in excerpt 2
Delay use on guitar in excerpt 2
Bigger reverberation sound used in excerpt 2
Electronic sound used in excerpt 2

8

2 marks for each correct answer to a maximum of 8

Total marks Question 6: (20)

QUESTION 7

This question is in two parts, (a) and (b).

The question is concerned with the structure and production features of the song “**Part of the Process**” by **Morcheeba**.

The plan of the song has been laid out with some of the sections already inserted in the table.

There will now be a pause of **two minutes** to allow you to read over the whole question, parts (a) and (b).

(a) The song uses the following sections:

chorus verse introduction solo break

Some sections occur more than once.

Insert the missing sections in **COLUMN A** of the table.

6

(b) The following is a list of production features that occur in the song at different points. Insert each feature **once** in **COLUMN B** of the table, at the section where it **first** occurs. More than one feature can appear in a section. It is suggested that to save time, you need write only what is underlined.

electric piano

keyboard bass

guitar with pitch bend

introduction of violin

backing vocals

percussion panning alternating from left to right

You are reminded that you should attempt both parts of the question.

You will hear the music **three** times.

Here is the music for the first time.

Here is the music for the second time.

Here is the music for the third time.

12

SONG PLAN

	COLUMN A SECTIONS	COLUMN B FEATURES
	(Introduction)	Keyboard Bass Guitar with pitch bend
↓ Start of lead vocal	Verse	Panning
↓	(Chorus)	
↓ ↓	(Verse)	Violin
↓	Chorus	Backing vocals

SONG PLAN (continued)



(Solo Break)

Verse

Electric Piano

(Chorus)

(Chorus)

Total marks Question 7: (18)

[END OF SECTION 2]

**1 mark for each section
2 marks for each feature**

SECTION 3

Marks

In this section the questions are related to the principles and practices of sound engineering and production. There are **no** excerpts of recorded music. Read the questions carefully before answering them.

You have **five minutes** to complete the remaining questions 8, 9 and 10.

A warning tone will sound **two minutes** before the end of the examination.

QUESTION 8

(a) Which connection would be the most suitable to connect a signal from an input channel on a mixing desk to an external noise gate? Tick **one** box.

- auxiliary return
- insert point
- effects send
- microphone input

1

(b) Explain how the use of a noise gate can be beneficial to the process of recording and/or mixing.

can isolate sound from different microphones to reduce effect of spillage
can reduce effects of unwanted noise on other channels
can eliminate background noise

2

Total marks Question 8: (3)

QUESTION 9

(a) In multi-track recording, what is the term applied to the process of recording additional tracks to synchronise with existing tracks? Tick **one** box.

- popping
- bouncing
- overdubbing
- masking

1

QUESTION 9 (continued)

Marks

(b) In multi-track recording, describe the technique of punching in (“dropping in”).

re-recording over a section of audio to fix a fault
requires setting up of start and/or stop points

2

Total marks Question 9: (3)

QUESTION 10

(a) Which of the following terms is **not** a property of a microphone? Tick **one** box.

impedance

pick-up pattern

wow and flutter

frequency range

1

(b) What equipment, methods or techniques could be used to achieve acoustic separation when recording?

acoustic screens/multi microphones
use of directional microphones/overdubbing
distance/direct injection

2

Total marks Question 10: (3)

[END OF SECTION 3]

[END OF MARKING INSTRUCTIONS]