

FOR OFFICIAL USE



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National
Qualifications
SPECIMEN ONLY

Mark

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S851/76/01

Music Technology

Date — Not applicable

Duration — 1 hour



Fill in these boxes and read what is printed below.

Full name of centre

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Town

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Forename(s)

--

Surname

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Number of seat

--

Date of birth

Day

--	--

Month

--	--

Year

--	--

Scottish candidate number

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Total marks — 40

Attempt ALL questions.

Write your answers clearly in the spaces provided in this booklet. Additional space for answers is provided at the end of this booklet. If you use this space you must clearly identify the question number you are attempting.

In this examination you will listen to music and audio excerpts and answer questions based on what you hear.

Where excerpts are played more than once, the number of times each excerpt is played is stated in the question.

Use **blue** or **black** ink.

You are not allowed to leave the examination room until the end of the test.

Before leaving the examination room you must give this booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



Question 1

Listen to this excerpt and identify **two** terms from the list below which describe what you hear. The excerpt will be played **twice**.

2

Hip hop	R'n'B	Reggae
Glissando	Broken chords	

Here is the music for the first time.
Here is the music for the second time.

Question 2

(a) Listen to this excerpt and identify the genre. Give **two** reasons for your answer, one referring to a **music** concept, and the other to a **technological** concept. The excerpt will be played **twice**.

3

Here is the music for the first time.
Here is the music for the second time.

Genre _____

Music concept _____

Technological concept _____

(b) Listen to this excerpt and identify **one** term from the list below which describes what you hear. The excerpt will be played **twice**.

1

Time changes	Irregular time signatures
Ritardando	A tempo

Here is the music for the first time.
Here is the music for the second time.



Question 3

In this question you will hear **two** recordings. For each one, you must identify the fault in the recording and describe in detail how to correct it.

- (a) Listen to this excerpt of a stereo keyboard recorded using direct injection, and look at the recorded waveform.



Identify the recording fault and describe in detail how to correct it. You will hear this excerpt **twice**.

Here is the excerpt for the first time.
Here is the excerpt for the second time.

(i) Fault _____ **1**

(ii) Correction _____ **1**

You now have **one** minute to complete your answer.



Question 3 (continued)

- (b) Listen to this excerpt and identify the fault in the MIDI bass line, and describe in detail how to correct it. You will hear the excerpt **twice**.

Here is the excerpt for the first time.

Here is the excerpt for the second time.

(i) Fault _____ 1

(ii) Correction _____ 1

You now have **one** minute to complete your answer.



Question 4

(a) You will hear two versions of a recording of a radio presenter.

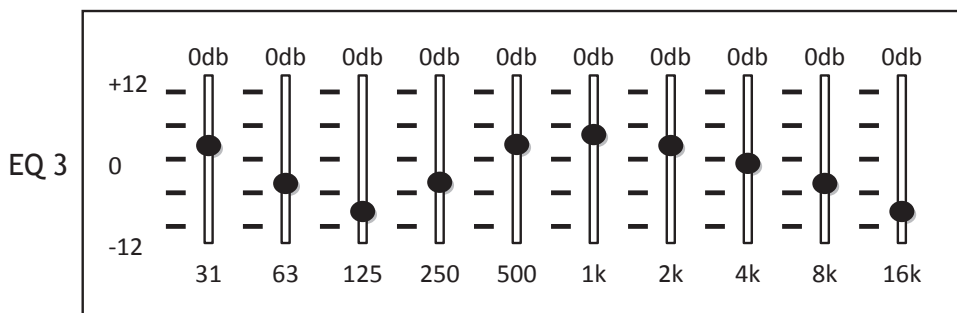
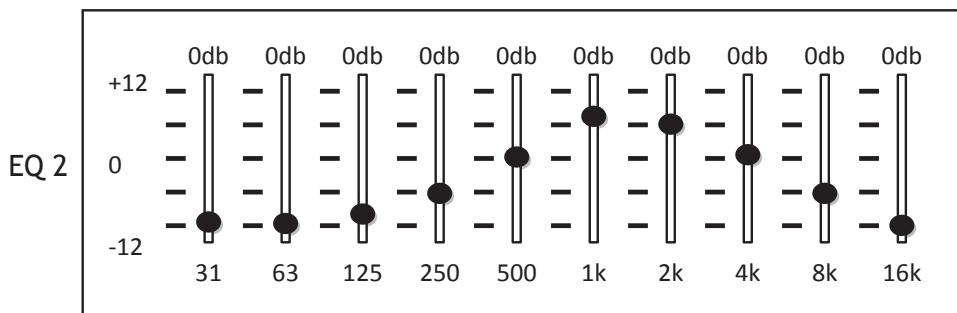
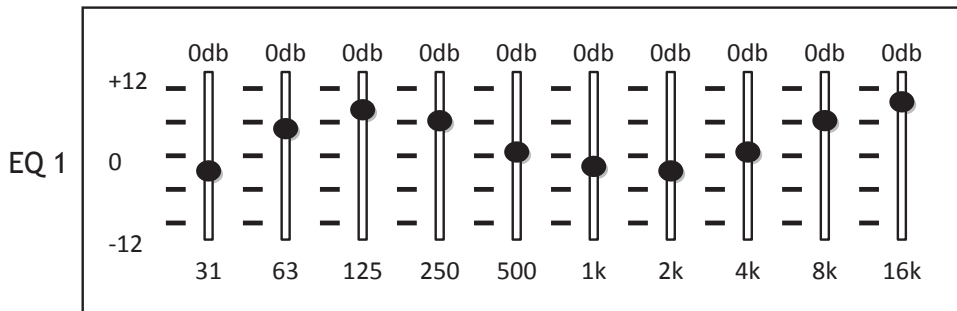
The **first** version has no effects or processes.

The **second** version has had EQ applied.

Listen to **Version 1**, with no effects or processes.

Listen to **Version 2**. Identify which EQ shown below (1, 2 or 3) has been applied, and justify your answer.

1



You now have 30 seconds to complete your answer.

EQ applied (1, 2 or 3)

Justification _____



Question 4 (continued)

- (b) Listen to another excerpt. Reverb has been applied to the vocal sample.
Name the **process** that has also been applied to the vocal sample.

1

You will hear the excerpt **twice**.

Here is the excerpt for the first time.
Here is the excerpt for the second time.

Process _____

- (c) Listen to the excerpt again. Identify **two** controls on a reverb effects processor.

2

Control 1 _____

Control 2 _____



* S 8 5 1 7 6 0 0 0 6 *

Question 5

MARKS DO NOT WRITE IN THIS MARGIN

This question is about intellectual property issues.

You will hear **two** excerpts of film music.

The first excerpt was composed by Elliot Goldenthal for the 1999 film 'Titus'. The second excerpt was composed by Tyler Bates for the 2007 film '300'.

Within a few months of the release of '300', a dispute took place between the copyright holders of the score for 'Titus', and Warner Brothers.

The following statement was released:

"Warner Brothers Pictures acknowledges and regrets that a number of the music cues for the score of '300' were, without our knowledge or participation, derived from music composed by Academy Award-winning composer Elliot Goldenthal for the motion picture 'Titus'. Warner Brothers Pictures has great respect for Elliot, our longtime collaborator, and is pleased to have amicably resolved this matter."

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

You will hear the excerpts **twice** with a pause of 15 seconds between playings.

Here is excerpt 1 for the first time.
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 now have **two** minutes to complete your answers for parts (a) and (b).

- (a) Referring to one **melody/harmony** concept and one **texture/structure/form** concept, identify **two** features of the music which are similar in each excerpt.

Melody/harmony _____ 1

Texture/structure/form _____ 1

- (b) Give **two** examples of how the composer of Excerpt 2 could have avoided a breach of intellectual property rights. 2



Question 6

This question features **three** excerpts of music from the same genre.

- (a) Listen to this excerpt and identify **two** terms from the list below which describe what you hear. The excerpt will be played **twice**.

2

Electroacoustic	Chromatic scale	Whole tone scale
World music	20th/21st century classical	

Here is the music for the first time.
Here is the music for the second time.

- (b) Listen to this excerpt of a saxophone quartet and describe in detail a **stereo** mic'ing technique you would use to achieve a similar recording. Justify your choice.

3

You now have **two** minutes to complete your answer.



Question 6 (continued)

- (c) Listen to this excerpt, and follow the baritone saxophone part printed below. Do not attempt to write anything during this first playing.



There are articulation marks missing from the printed music.

You will hear the excerpt **two** more times. Name the type of articulation mark which is missing from the printed music.

1

Here is the music for the first time.
Here is the music for the second time.

Articulation mark _____

[Turn over

Question 7

This question relates to technological developments.

Choose a technological development from the list and answer the questions below.

Tick **one** box to indicate your choice.

- Player piano
- Electric guitar (solid body)
- Synthesiser

You now have **five** minutes to answer the questions below.

A warning tone will sound 30 seconds before the next question starts.

(a) Describe in detail how your chosen technology **developed**. 2

(b) Describe in detail the **key features** of your chosen technology. 2



Question 8

In this question you will hear a patch being created on a synthesiser.

A guide to the audio is laid out below. You will see that further information is required and must be inserted in the spaces.

There will now be a pause of **40 seconds** to allow you to read through the question.

The music will be played **three** times with a pause of **15 seconds** between playings.

In each playing, a voice will help guide you through the numbered sections.

Here is the music for the first time.

Here is the music for the second time.

Here is the music for the third time.

Section	Description	
1.	The _____ time is being increased.	1
2.	The _____ time is being increased.	1
3.	The process now applied is _____ .	1
4.	The added effects are _____ and _____ .	2
5.	The music now modulates to the _____ _____ .	1
6.	The synthesiser now plays three _____ of the chord.	1

[Turn over



Question 9

Listen to this excerpt of music.

You must identify **five** music/production features present in the music from the ten listed below.

You will hear the music **three** times, with a pause of 15 seconds between each playing.

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

Pitch-shifted vocals in harmony	Clavinet keyboard with wah wah effect
Synthesiser ostinato with portamento	Drum groove with offbeat hi hat
Descending scale played by saxophones in harmony	Distorted lead guitar solo
Strings play an ascending glissando	Bass guitar octave leap
Vocal with reverb panned left	Bass guitar harmonics

Give the **five** features on the lines below.

5

Here is the music for the first time.
 Here is the music for the second time.
 Here is the music for the third time.

You now have **two** minutes to complete your answer.

[END OF SPECIMEN QUESTION PAPER]



MARKS

DO NOT
WRITE IN
THIS
MARGIN

ADDITIONAL SPACE FOR ANSWERS



* S 8 5 1 7 6 0 0 1 3 *

MARKS

DO NOT
WRITE IN
THIS
MARGIN

ADDITIONAL SPACE FOR ANSWERS

Acknowledgement of Copyright

Question 6(c) Graphical music is taken from “Arias and Ghosts” (Quicksilver) by Mike Searby, performed by the Delta Saxophone Quartet. Reproduced by kind permission of Dr Mike Searby.



* S 8 5 1 7 6 0 0 1 4 *

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DO NOT WRITE ON THIS PAGE



* S 8 5 1 7 6 0 0 1 5 *

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DO NOT WRITE ON THIS PAGE



* S 8 5 1 7 6 0 0 1 6 *

Specimen Question Paper Audio Excerpts Music Technology - HIGHER

Question		Track Title	Performer	Composer	Album Title	Excerpt Start	Excerpt End
1		Survivor	Destiny's Child	Anthony Dent, Beyonce Knowles, Mathew Knowles	Survivor	0:00	1:00
2	a	Stratus	Billy Cobham	William E. Cobham Jr.	Spectrum	3:02	4:06
2	b	Lucky Seven	The Dave Weckl Band	Dave Weckl	Synergy	0:00	0:59
3	a	Audio file prepared for SQA					
3	b	Audio file prepared for SQA					
4	a	Audio file prepared for SQA					
4	b	Higher State of Consciousness	Josh Wink	J Wink	Higher State of Consciousness	0:19	0:31
4	c	Higher State of Consciousness	Josh Wink	J Wink	Higher State of Consciousness	0:19	0:31
5	a excerpt 1	Victorious Titus - Vocal	Elliot Goldenthal	Elliot Goldenthal	Titus - Original Motion Picture Soundtrack	0:00	1:19
5	a excerpt 2	Returns a King - based on themes by Elliot Goldenthal	Tyler Bates	Tyler Bates	300 - Original Motion Picture Soundtrack (U.S. version)	0:00	1:12
6	a	Une fete, Op. 38: I vivo	Anthony Gladstone	Vladimir Rebikov	Russian Piano Music, Vol.2	0:00	0:28
6	b	Arias and Ghosts (Quicksilver)	Delta Saxophone Quartet	Mike Searby	Uneasy Dreams	0:00	1:06
6	c	Arias and Ghosts (Quicksilver)	Delta Saxophone Quartet	Mike Searby	Uneasy Dreams	0:00	1:06
7		No audio excerpt for this question.					

Specimen Question Paper Audio Excerpts Music Technology - *HIGHER*

Question	Track Title	Performer	Composer	Album Title	Excerpt Start	Excerpt End
8		Audio file prepared for SQA				
9		Get up offa that thing	James Brown	James Brown	James Brown Vol.2 - Universal Masters	0:00 1:50



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Music Technology

Marking Instructions

These marking instructions have been provided to show how SQA would mark this specimen question paper.

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General marking principles for Higher Music Technology

Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates' responses.

- (a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.
- (b) You should not accept any answer that is not in the marking instructions. Use professional judgement when candidates' responses do not exactly match the marking instructions but carry the same meaning.
- (c) Accept inaccurate spelling of English or Italian terms, as long as the meaning is clear.
- (d) Where a question asks for a description, explanation or justification, do not award marks for simple one- or two-word answers.

Marking instructions for each question

Question		Expected answer(s)	Max mark	Additional guidance
1.		R'n'B Broken chords.	2	1 mark for each answer. Do not accept other answers here.
2.	(a)	Jazz Funk Possible music reasons: <ul style="list-style-type: none"> the excerpt is a jazz/funk 'head' followed by improvisations the music is based on a repeated ostinato the music uses a great deal of syncopation. Possible technological reasons: <ul style="list-style-type: none"> chorus and overdrive/distortion on electric guitar chorus and ring mod on the electric piano. 	3	1 mark for correct genre. 1 mark for a reason related to a music concept. 1 mark for a reason related to a technological concept.
	(b)	Irregular time signatures.	1	Do not accept other answers here.
3.	(a)	Fault: The left channel has audible distortion/is peaking. Correction: Turn the left channel's gain/trim down, or balance the gain/trim on both channels.	2	1 mark for a description of the fault. 1 mark for a detailed description of a matching correction.
	(b)	Fault: The bass track is out of time. Correction: Quantise the MIDI bass part/play the part again in time.	2	1 mark for a description of the fault. 1 mark for a detailed description of a matching correction.

Question		Expected answer(s)	Max mark	Additional guidance
4.	(a)	<p>EQ1:</p> <p>Bass is boosted, or bass and treble boosted.</p>	1	Award the mark only where candidate identifies EQ1 and gives a valid justification.
	(b)	Time expansion	1	Do not accept other answers here.
	(c)	<p>balance decay depth diffusion dry/wet gate time mix pre-delay room size time.</p>	2	<p>Accept any two answers.</p> <p>Do not accept room types, eg cathedral or hall.</p> <p>Do not accept reverb types, eg spring, plate, digital.</p>
5.	(a)	<p>Melody/harmony</p> <ul style="list-style-type: none"> • both excerpts are in a minor key • inverted pedal • pedal • similar stepwise movement • vocal harmonies. <p>Texture/structure/form</p> <ul style="list-style-type: none"> • accompanied voices • homophonic • singing in unison/octaves • strophic • unaccompanied voices. 	<p>1</p> <p>1</p>	<p>1 mark for melody/harmony</p> <p>1 mark for texture/structure/form.</p> <p>Do not accept other answers here.</p>
	(b)	<p>The composer of Excerpt 2 could have:</p> <ul style="list-style-type: none"> • significantly changed the vocal melody • obtained permission to use melodic aspects of excerpt 1 • given a writing credit to the composer of excerpt 1. 	2	Also accept agreed a financial contract between the two parties for the melody to be used/royalties.

Question		Expected answer(s)	Max mark	Additional guidance
6.	(a)	20th/21st Century Classical Whole Tone Scale.	2	1 mark for each answer. Do not accept other answers here.
	(b)	A matched/stereo pair of cardioid condensers in XY/ORTF. OR Stereo pair of omni-directional condensers in AB/spaced pair. Microphones should be placed at a metre or more from the source. This should ensure good stereo separation and a good balance of direct sound and room ambience.	3	1 mark for microphones/array. 1 mark for placement. 1 mark for justification. Do not accept other answers here.
	(c)	Staccato.	1	Do not accept other answers here.
7.	(a)	Examples of 2-mark responses: Player piano The first player piano device was invented in the 1840s, however the pneumatic version that was in wide spread use was invented in the early 1900s. It was most popular in the 1920s but became obsolete by the 1930s following the Wall Street crash. Electric guitar (solid body) The Fender Broadcaster/Telecaster was the first successfully commercial solid-body electric guitar. It was released in 1950. Leo Fender designed the guitar. Synthesiser Synthesised sounds were invented as early as the 1890s, but the first voltage controlled synthesisers were invented in the late 1950s with the first Moog synthesiser being invented in the 1960s. Examples of 1-mark response: Player piano the player piano was most popular in the 1920s the first player piano was invented in the 1840s	2	Do not award marks for only selecting a technological development from the list provided. <ul style="list-style-type: none"> detailed response describing the development of the selected technology (2 marks) straightforward response describing the development of the selected technology (1 mark)

Question		Expected answer(s)	Max mark	Additional guidance
		<p>the pneumatic operated player piano was invented in the 1900s.</p> <p>Electric guitar (solid body) the first solid body electric guitar was released in 1950</p> <p>the first solid body electric guitar was the Telecaster</p> <p>the first solid body electric guitar was designed by Leo Fender.</p> <p>Synthesiser the Moog synthesiser was invented in the 1960s</p> <p>synthesised sounds were invented in the 1890s</p> <p>the first voltage controlled synthesisers were invented in the late 1950s.</p>		
	(b)	<p>Examples of 2-mark responses:</p> <p>Player piano a player piano is a self-playing piano fitted with a rotating roll of perforated paper. The piano action is operated pneumatically.</p> <p>Electric guitar (solid body) an electric guitar uses magnetic pickups to convert the vibration of the strings into electrical signals. The electrical output must then be amplified.</p> <p>Synthesiser a synthesiser is an electronic musical instrument that processes waveforms generated by an oscillator using filters, envelopes, and LFOs.</p>	2	<ul style="list-style-type: none"> • detailed response describing the key features of the selected technology (2 marks) • straightforward response describing the key features of the selected technology. (1 mark)

Question		Expected answer(s)	Max mark	Additional guidance
		<p>Examples of 1-mark response:</p> <p>Player piano A player piano is a self-playing piano.</p> <p>A player piano can play pre-programmed music.</p> <p>Electric guitar (solid body) An electric guitar uses magnetic pickups.</p> <p>The electrical output of an electric guitar must be amplified.</p> <p>Synthesiser A synthesiser is an electronic musical instrument that processes waveforms.</p> <p>A synthesiser uses oscillators/filters/envelopes/LFOs.</p>		
8.		<ol style="list-style-type: none"> 1. attack 2. release 3. portamento or glide 4. phaser and delay 5. relative minor 6. inversions. 	7	<p>1 mark for each correct word inserted.</p> <p>4. Also accept flanger.</p>
9.		<p>The correct 5 features are:</p> <ul style="list-style-type: none"> • clavinet keyboard with wah wah effect • drum groove with offbeat hi hat • descending scale played by saxophones in harmony • bass guitar octave leap • vocal with reverb panned left. 	5	<p>1 mark for each correct feature.</p> <p>Do not accept other answers here.</p>

[END OF SPECIMEN MARKING INSTRUCTIONS]

Published: June 2018

Change since last published:

Removed superfluous question (1b). The question paper totals 40 marks.