



NCFE Level 3 Applied General Certificate in Music Technology (601/6779/8)

Past Paper

Wednesday 12 June 2019

9.30 am – 11.30 am

Time allowed: 2 hours

Learner instructions

- Use black or blue ink.
- Answer **all** questions.
- Read each question carefully.
- Write your responses in the spaces provided.
- All of the work you submit **must** be your own.

Learner information

- The marks available for each question are shown in brackets.
- The maximum mark for this paper is 80.
- You may use a calculator.

Resources

- Headphones
- individual workstation with listening capabilities
- audio files:
 - Audio File Section 1
 - Audio File Section 2
 - Audio File Section 3
 - Audio File Section 4

To be completed by the examiner	Mark
Section 1	
Section 2	
Section 3	
Section 4	
Section 5	
Section 6	
TOTAL MARK	

Please complete the details below clearly and in BLOCK CAPITALS.

Learner name _____

Centre name _____

Learner number

Centre number

Do not turn over until the Invigilator tells you to do so.

Section 1

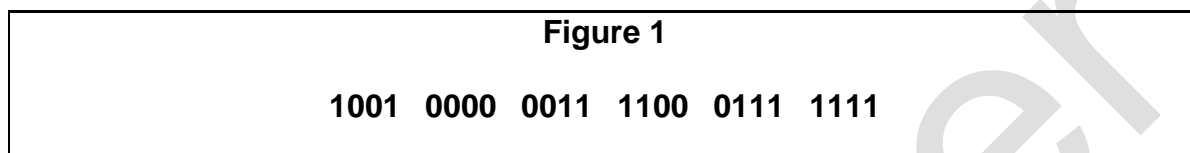
This section has a possible 10 marks.

We recommend that you spend 15 minutes on this section.

Answer **all** questions in the spaces provided.

Questions in Section 1 relate to the audio file labelled '**Audio File Section 1**'.

- 1 **Figure 1** shows a MIDI Note-on message.



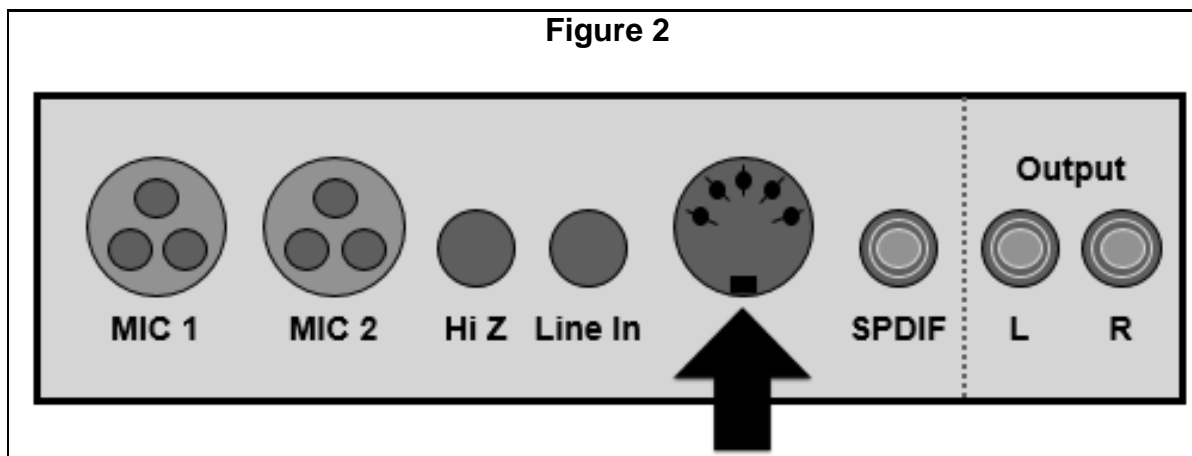
Which **one** of the following terms best describes the function of the last 8-bit byte of the MIDI Note-on message shown in **Figure 1**?

[1 mark]

- A Pitch Bend
- B Sustain
- C SysEx
- D Velocity

Answer _____

2 **Figure 2** shows an audio/MIDI interface.



Identify **two** peripheral devices that could be connected to the MIDI IN connector shown by the arrow in **Figure 2**.

[2 marks]

Device 1: _____

Device 2: _____

3 Explain **one** advantage of using real-time MIDI input over step-time input when recording a performance.

[2 marks]

4 What effect has been applied to the drums between 00:33 and 00:45 in **Audio File Section 1**?

[1 mark]

- 5 Explain how **one** Digital Audio Workstation (DAW) arranging feature has been used to alter the music between 00:33 and 00:45 in **Audio File Section 1**. [2 marks]

- 6 A producer is preparing to export **Audio File Section 1** to an MP3 format. Explain **one** audible disadvantage of exporting audio as an MP3 format file. [2 marks]

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Section 2

This section has a possible 10 marks.

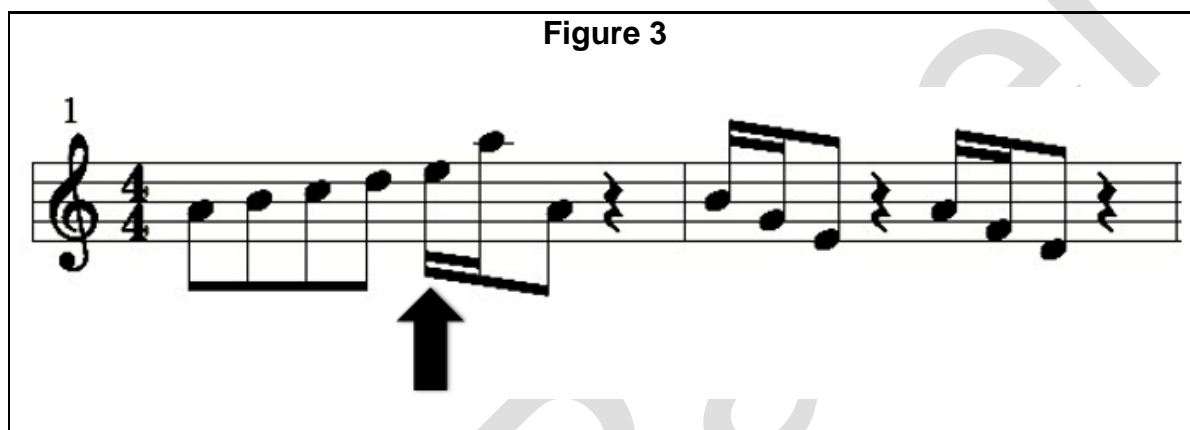
We recommend that you spend 15 minutes on this section.

Answer **all** questions in the spaces provided.

Questions in Section 2 relate to the audio file labelled '**Audio File Section 2**'.

- 7 **Figure 3** shows the melody played by the organ in the first two bars of Audio File Section 2.

Figure 3



The image shows a musical staff in 4/4 time with a treble clef. The melody starts with a quarter rest, followed by a quarter note on G4, a quarter note on A4, a quarter note on B4, and a quarter note on C5. A thick black arrow points to the C5 note. This is followed by a quarter note on B4, a quarter note on A4, and a quarter note on G4. The second bar begins with a quarter note on F4, followed by a quarter note on E4, a quarter note on D4, and a quarter note on C4. The notation includes stems, beams, and note heads.

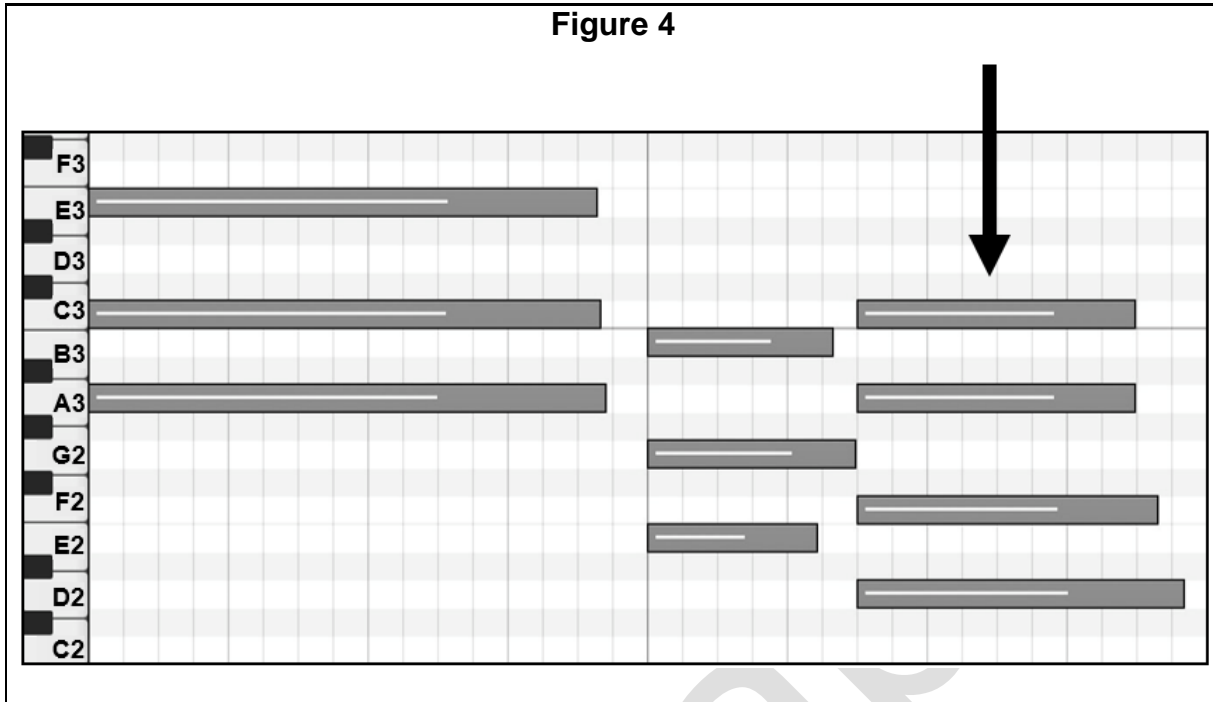
Which **one** of the following terms best describes the length of the note shown by the arrow in **Figure 3**?

[1 mark]

- A Crotchet
- B Quaver
- C Semibreve
- D Semi-quaver

Answer _____

8 **Figure 4** shows a chord that is played at 00:05 in **Audio File Section 2**.



Identify the chord shown by the arrow in **Figure 4**.

[2 marks]

9 Describe how the introduction of new instrumentation affects the texture of the music at 00:59 of **Audio File Section 2**.

[2 marks]

10 Identify the structure of the song in **Audio File Section 2**.

[1 mark]

11 Explain how the rhythm of the electric guitar part changes at 00:29 in **Audio File Section 2**.

[2 marks]

12 The organ melody heard from 00:00 to 00:28 in **Audio File Section 2** is a phrase repeated four times with a variation in the final two repetitions.

Explain how the changing melody of the organ affects its melodic relationship with the background electric piano chords.

[2 marks]

Please turn over for the next question.

Section 3

This section has a possible 20 marks.

We recommend that you spend 30 minutes on this section.

Answer **all** questions in the spaces provided.

Questions in Section 3 relate to the audio file labelled '**Audio File Section 3**'.

- 13** The microphone being used on the snare drum in **Audio File Section 3** is capturing a lot of unwanted spill from the other parts of the drum kit.

Identify an appropriate microphone polar pattern that would reject unwanted sound sources.

[1 mark]

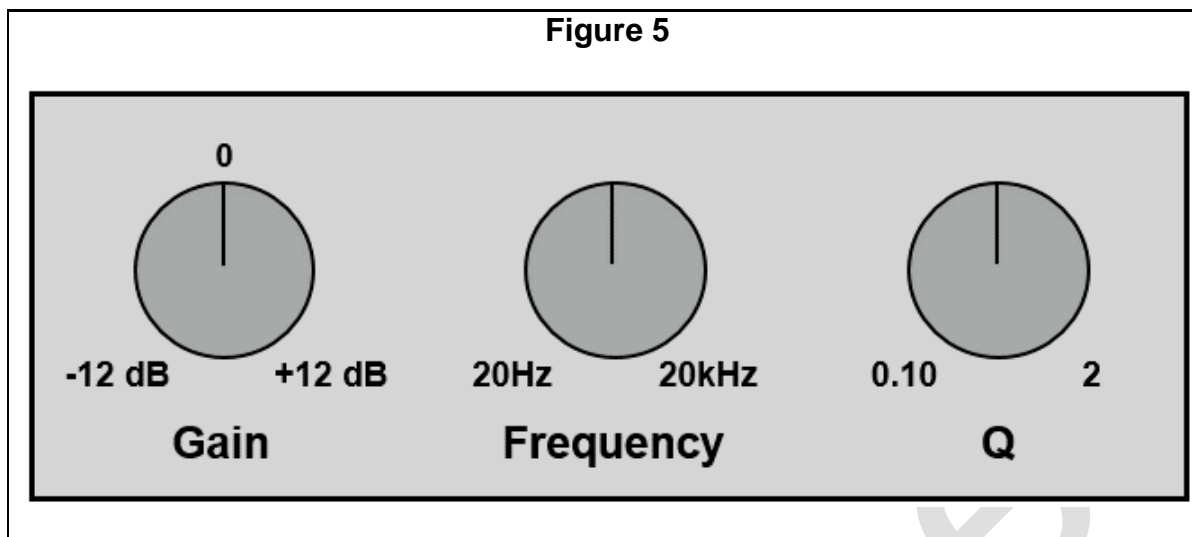
- 14** Which **one** of the following statements best describes the term over-dubbing?

[1 mark]

- A** Recording a short part for the purpose of looping
- B** Recording additional versions of the same musical part
- C** Recording an initial part
- D** Recording over an unsatisfactory take

Answer _____

15 **Figure 5** shows the settings for a single-band EQ.



The vocal in **Audio File Section 3** has a noticeable balance issue. There is a lot of sibilance (emphasis of 't' and 's' sounds) when certain words are sung.

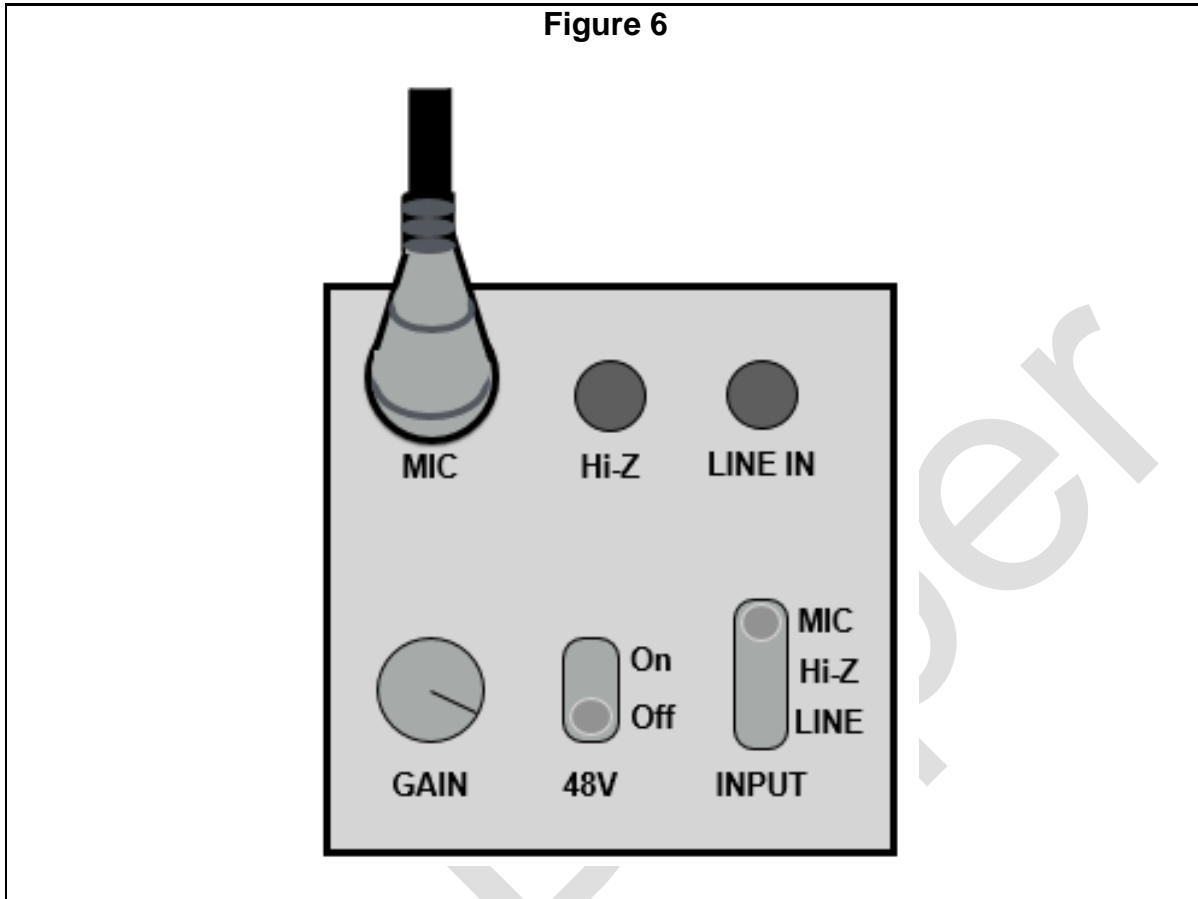
Explain how the Frequency **and** Q controls in **Figure 5** would be used to reduce the sibilance.

[4 marks]

Frequency

Q Control

16 **Figure 6** shows an audio interface.



A band called The Flaming Fretboards have plugged a condenser microphone into the MIC input of their audio interface to record vocals. The microphone is not producing any output.

Explain how you would resolve the output problem by changing **one** of the settings shown in **Figure 6**.

[2 marks]

- 17** The Flaming Fretboards have multi-track recordings made on analogue tape. They have decided to create digital backup copies of these recordings.

Explain **one** advantage of transferring analogue tape recordings to digital hard disk recorders for long-term storage.

[2 marks]

Please turn over for the next question.

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Section 4

This section has a possible 20 marks.

We recommend that you spend 30 minutes on this section.

Answer **all** questions in the spaces provided.

Questions in Section 4 relate to the audio file labelled '**Audio File Section 4**'.

19 Sound can be produced using various different types of synthesis.

Identify **three** characteristic features of FM synthesis.

[3 marks]

1. _____

2. _____

3. _____

20 The bit-depth of the drums has been reduced from 00:27 onwards in **Audio File Section 4**.

Describe how the reduced bit-depth affects the drum part.

[2 marks]

21 Identify the type of filter that has been applied across the whole mix between 00:24 and 00:26 of **Audio File Section 4**? **[1 mark]**

- A** Band-pass filter
- B** High-pass filter
- C** Low-pass filter
- D** High-cut filter

Answer _____

22 Explain how **two** envelope settings have been audibly manipulated on the synth part at 00:40 of **Audio File Section 4**. **[4 marks]**

1. _____

2. _____

Section 5

This section has a possible 10 marks.

We recommend that you spend 15 minutes on this section.

Answer **all** questions in the spaces provided.

- 24** You have been asked to create a technical plan for The Flaming Fretboards' next tour. You can choose passive or active stage monitors.

State **one** advantage of using passive stage monitors.

[1 mark]

- 25** Which **one** of the following activities would you **not** expect to take place at a technical rehearsal?

[1 mark]

- A** Learning the musical parts
- B** Placement of backline equipment
- C** Setting sound levels for Front of House
- D** Setting up monitor mixes for musicians

Answer _____

- 26** The Flaming Fretboards are considering touring with a drum machine instead of a drummer.

Identify **one** advantage and **one** disadvantage of a rock band using a drum machine for live performances.

[2 marks]

Advantage

Disadvantage

27 The guitarist in the Flaming Fretboards likes to move around the stage during performances and is often situated far from her backline amplification. The amplifiers are already set to full, but the guitarist can't hear her backline when she is on the other side of the stage.

Describe **one** way to make sure the guitarist can hear herself evenly across all of the stage area.

[2 marks]

28 A DJ will be performing between The Flaming Fretboards' two sets every night on the tour.

Explain **one** advantage and **one** disadvantage of a DJ using **only** CD decks during an event.

[4 marks]

Advantage

Disadvantage

Section 6

This section has a possible 10 marks.

We recommend that you spend 15 minutes on this section.

Answer **all** questions in the spaces provided.

29 **Figure 6** shows royalty data for different streaming services.

Streaming Service	Royalty Rate	Number of Streams
Centillion Play Music	£0.05	200
Jungle Music	£0.005	4,300
Magnify Music	£0.015	975
Pear Music	£0.06	190
Topaz Streaming	£0.16	325

The Flaming Fretboards have distributed their music across multiple streaming services.

Which **two** services have generated the most income for the band?

[2 marks]

- A** Centillion Play Music
- B** Jungle Music
- C** Magnify Music
- D** Pear Music
- E** Topaz Streaming

Answer 1 _____

Answer 2 _____

- 30** Many bands now choose to distribute their music online instead of using traditional physical formats.

Explain **one** disadvantage of distributing physical products (for example, CD or vinyl) rather than using online digital distribution.

[2 marks]

- 31** The Flaming Fretboards have decided to release a music video on YouTube before their album is distributed. The video release date is two months before the album release.

Explain **one** possible disadvantage of releasing the video at that time.

[2 marks]

- 32** The Flaming Fretboards think they might release audio previews of their album. These previews will feature small excerpts from each song.

Explain how the audio previews could help promote the album release.

[2 marks]

33 The Flaming Fretboards want to promote the release of their album. They only have a limited amount of money to spend on merchandise. They have decided to spend money on either posters or t-shirts. They have asked your advice on which to choose.

Explain which you would choose and justify your choice.

[2 marks]

This is the end of the external assessment

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