External Assessment

NCFE Level 1 Technical Award in Music Technology (601/6777/4)
NCFE Level 2 Technical Award in Music Technology (601/6774/9)

Past Paper

Assessment window: 11 March 2019 – 15 March 2019

Time allowed: 2 hours
Total marks: 36

Centre name		**Centre number**	
Learner name		**Learner number**	
Learner declaration: I confirm that the work contained in this external assessment is all my own work. I have not copied work directly from handouts/internet/textbooks or any other publication. If I have used a quote, then I have referenced this appropriately. My full name above is my registered name with NCFE. **Learner signature:** **Date:**			

Learner instructions

- Complete all tasks.
- Read the scenario and each task carefully.
- The marks available for each question are shown in brackets.
- Use black or blue ink.

Resources

- Word processor or pen.
- Headphones.
- Individual workstation/device with:
  - listening capabilities
  - access to Digital Audio Workstation (DAW) software and associated hardware (e.g. audio interface, MIDI controller)
  - capacity to save/store digital files.
- Audio and MIDI files provided to you:
  - Bass.wav
  - Drums.wav
  - Guitars & Strings.wav
  - Vocals.wav
  - Organ.mid.

To be completed by the examiner	Score
Task 1	
Task 2	
Task 3	
Task 4	
TOTAL	

Instructions continue on the next page, please turn over.

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Evidence Requirements

The specific evidence requirements are detailed on each task. You will need to give the following types of evidence:

- written responses, either on a separate word processed document or in the answer space provided after each task
- screenshots. If required, you may ask the Invigilator to show you how to take and save screenshots
- audio files.

Electronic Evidence

All screenshots (and written responses, where these are provided electronically) should be provided in a single electronic document. Label each piece of evidence as instructed in each task. You should save the document with the following file name:

- Surname_Initial_learner number
  e.g. Smith_J_123456789

The preferred format for this document is PDF. Your Invigilator will be able to advise you of other acceptable file formats.

Audio files should be saved with the following file name:

- Surname_Initial_learner number_evidence reference
  e.g. Smith_J_123456789_Mix 1

The audio files should be saved as .wav, .mp3 or .aiff files. Do not submit DAW files or MIDI files as evidence.

The Invigilator will tell you your learner number and you can see the evidence reference in **bold** on each task.

At the end of the assessment, there is a checklist. This helps you to make sure you have included all the evidence.

You should remember to save your work regularly during the assessment.

DO NOT TURN OVER UNTIL YOU ARE INSTRUCTED TO DO SO BY THE INVIGILATOR.

Scenario

You work as an independent amateur producer and engineer.

A local band has contacted you. They have asked you to edit and mix the recording session files for a new song they hope to release online.

Task 1 – Configuration [9 marks]

You should spend approximately **30 minutes** on this task.

1a. There are technical features of your Digital Audio Workstation (DAW) software and associated hardware which make them suitable to edit, develop and mix the recording session files. Describe these technical features.

1b. Complete the following steps:

- create a new project in your DAW software
- set the tempo to 85 bpm
- create 4 audio tracks
- create 2 software instrument tracks
- set the audio output for your monitoring equipment.

Explain how you completed these tasks.

1c. Complete the following steps:

- Import the audio files labelled **Drums**, **Bass, Guitars & Strings** and **Vocals** onto the audio tracks that you created in Task 1b so that all files start at bar 1 (the **Drums** part will begin during bar 4, the **Bass** part will begin during bar 4, the **Guitars & Strings** will begin at bar 1 and the **Vocals** will begin at bar 16)
- Import the MIDI file labelled **Organ** onto one of the software instrument tracks so that it starts at bar 1 (the first note will play during bar 54)
- Select a pre-set sound of your choice for the **Organ** track.

Explain how you completed these tasks.

Evidence required:

- a screenshot showing your whole project at this point, labelled **Screenshot 1**
- written response, labelled **Task 1**:
  - describing the DAW software and any other equipment you are using
  - explaining how you completed the tasks in **1b** and **1c**.

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Examiner use only

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Task 2 – Editing [9 marks]

You should spend approximately **30 minutes** on this task.

2a. The **Drums** audio part contains two hi-hat notes that are out of time in bar 7. Use audio editing tools to make sure that the hi-hat notes in bar 7 follow the same rhythm as they do in bar 6 and are in time with the rest of the other parts.

Explain how you completed this task.

2b. The **Organ** MIDI part has two pitching errors in bar 66. Adjust the pitches of the Chord MIDI part so that there are no pitching errors.

Explain how you completed this task.

2c. Use audio editing to copy the **Drums** part from the start of bar 13 to the end of bar 16. Use this copy to fill the gap in the drum groove from beat 2 of bar 27 to the end of beat 1 of bar 31.

Explain how you completed this task.

2d. Complete the following steps:

- Mute the **Bass** and **Guitars & Strings** tracks so that only the **Drums**, **Vocals** and **Organ** parts can be heard.
- Make sure that start and finish markers leave no more than one second of silence at the beginning and end of the track.
- Export the song to a suitable stereo format.
- Save the stereo audio file as '**Surname_Initial_learner number_Mix 1**'.

Explain how you completed these tasks.

Evidence required:

- a screenshot showing your whole project at this point, labelled **Screenshot 2**
- written response labelled **Task 2** explaining how you completed tasks **2a, 2b, 2c** and **2d**
- '**Mix 1**' stereo audio file.

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Task 3 – Musical Development [9 marks]

You should spend approximately **30 minutes** on this task.

3a. Create a new sound for your **Organ** MIDI part by selecting and editing a software instrument. The sound that you create should be suitable for the style of the song.

Explain the following:

- your choice of software instrument type
- your use of timbre editing in the software instrument
- your use of envelope editing in the software instrument.

3b. Bar 70 of the **Organ** MIDI part should include an A minor chord. The chord is missing from the file. Record this missing chord onto the **Organ** MIDI track using your MIDI controller.

Explain how you completed this task.

3c. Complete the following steps:

- Select a synth lead sound for your empty software instrument track. You must make sure that the sound can be heard in your mix.
- Create an original melodic MIDI synth lead part. The part should begin on beat 2 of bar 46 and continue until the end of bar 53.

Explain the following:

- how you selected the sound for the synth lead part
- your musical ideas for the MIDI synth lead melody part.

3d. Complete the following steps:

- Mute the **Bass** and **Guitar & Strings** audio tracks so that only the **Drums** audio, **Vocals** audio, **Organ** MIDI and the new synth lead MIDI parts can be heard. Make sure that start and finish markers leave no more than one second of silence at the beginning and end of the track.
- Export the song to a suitable stereo format.
- Save the stereo audio file as '**Surname_Initial_learner number_Mix 2**'.

Explain how you completed these tasks.

Evidence required:

- a screenshot showing your whole project at this point, labelled **Screenshot 3**.
- written response labelled **Task 3** explaining how you completed tasks **3a, 3b, 3c** and **3d**
- **'Mix 2'** stereo audio file.

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Task 4 – Mixing [9 marks]

You should spend approximately **30 minutes** on this task.

4a. Complete the following steps:

- Create a short fade out for the **Guitars & Strings** audio track at the very end of the song so that you cannot hear this audio track as the lead vocal sings the word "be".
- Use automation to pan the **Guitars & Strings** audio track to hard left from the start of bar 1 to the end of bar 4 and back to centre from bar 5 to the end of the song.
- Use volume automation to gradually fade the **Bass** audio track from the start of bar 17 to the end of bar 19 and return the volume to its original level at the start of bar 25.

Explain how you completed these tasks.

4b. Add a delay effect to the **Vocals** audio track. You must make sure that the feedback and wet controls are around 10% and the delay time is approximately 200ms.

Explain how you completed this task.

4c. Create a final mix using volume balance, panning, dynamics processing, automation and any additional effects processing that you wish to apply creatively.

Explain how you completed this task.

4d. Complete the following steps:

- Make sure that start and finish markers leave no more than one second of silence at the beginning and end of the track.
- Export the song to a suitable stereo format.
- Save the stereo audio file as '**Surname_Initial_learner number_Mix 3**'.

Explain how you completed these tasks.

Evidence required:

- a screenshot showing your whole project at this point, labelled **Screenshot 4**
- written response labelled **Task 4** explaining how you completed tasks **4a, 4b, 4c** and **4d**
- '**Mix 3**' stereo audio file.

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Evidence Checklist

Task Number	Evidence Type	Please tick (✓) one	
		Handwritten	Electronic
Task 1	Screenshot		
Task 1	Written response		
Task 2	Screenshot		
Task 2	Written response		
Task 2	Audio file		
Task 3	Screenshot		
Task 3	Written response		
Task 3	Audio file		
Task 4	Screenshot		
Task 4	Written response		
Task 4	Audio file		

This is the end of the external assessment