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

Assessment window: 7 May 2019 – 12 June 2019

Mark Scheme

This mark scheme has been written by the Assessment Writer and refined, alongside the relevant questions, by a panel of subject experts through the external assessment writing process and at standardisation meetings.

The purpose of this mark scheme is to give you:

- examples and criteria of the types of response expected from a learner
- information on how individual marks are to be awarded.

Marking guidelines

General guidelines

You must apply the following marking guidelines to all marking undertaken throughout the marking period. This is to ensure fairness to all learners, who must receive the same treatment. You must mark the first learner in exactly the same way as you mark the last.

- The mark scheme must be referred to throughout the marking period and applied consistently. Do not change your approach to marking once you have been standardised.
- Reward learners positively giving credit for what they have shown, rather than what they might have omitted.
- Utilise the whole mark range and always award full marks when the response merits them.
- Be prepared to award zero marks if the learner's response has no creditworthy material.
- Do not credit irrelevant material that does not answer the question, no matter how impressive the response might be.
- The marks awarded for each response should be clearly and legibly recorded in the grid on the front of the question paper.
- If you are in any doubt about the application of the mark scheme, you must consult with a senior examiner.

Guidelines for using level of response grids

Level of response marking grids have been designed to award a learner's response holistically and should follow a best-fit approach. The grids are broken down into levels, with each level having an associated descriptor indicating the performance at that level. You should determine the level before determining the mark.

When determining a level, you should use a bottom up approach. If the response meets all the descriptors in the lowest level, you should move to the next one, and so on, until the response matches the level descriptor. Remember to look at the overall quality of the response and reward learners positively, rather than focussing on small omissions. If the response covers aspects at different levels, you should use a best-fit approach at this stage, and use the available marks within the level to credit the response appropriately.

When determining a mark, your decision should be based on the quality of the response in relation to the descriptors. You must also consider the relative weightings of the assessment objectives, so as not to over/under credit a response. Standardisation materials, marked by senior examiners, will help you with determining a mark. You will be able to use exemplar learner responses to compare to a live response, to decide if it is the same, better or worse.

You are reminded that any indicative content provided is there as a guide, and therefore you must credit any other suitable responses a learner may produce. It is not a requirement either, that learners must cover all of the indicative content to be awarded full marks.

Qu	Marking guidance	Total marks
1	**Task 1 – Planning and stylistic context**	**10**

Level	Marks	Description
5	9 – 10	Learner's plan shows detailed evaluative understanding of all music elements – structure, melody, harmony, rhythm and instrumentation. Outcome uses appropriate, creative and imaginative musical elements throughout. Stylistically coherent throughout. Outcome makes detailed, imaginative and creative use of supplied material throughout.
4	7 – 8	Learner's plan shows detailed explanation of all musical elements, with some minor inconsistencies. Outcome uses appropriate and creative musical elements throughout. Stylistic coherence, may have some inconsistencies. Outcome makes use of supplied material with some creativity and attention to detail.
3	5 – 6	Learner's plan shows detailed description of all musical elements, with some inconsistencies. Outcome uses appropriate and creative musical elements throughout. Stylistic coherence may have some inconsistencies. Outcome makes use of supplied material with some creativity.
2	3 - 4	Learner's plan is likely to be limited or inconsistent in description. Outcome shows use of appropriate ideas with some creativity, but this may not be sustained throughout.

		Mostly stylistically recognisable, but some noticeable inconsistencies. Outcome makes some structured use of supplied material
1	1 - 2	Learner's plan may not identify all musical elements. Description is likely to be limited or very inconsistent. Outcome shows limited use of creative resources and some inappropriate use of musical elements. May not be representatively stylistic. Outcome makes some basic use of supplied material
	0	Insufficient evidence for a mark to be awarded

Indicative Content

Learners will consider the stylistic and technical aspects of their chosen style and make informed choices when referencing structure, harmony, melody, rhythm and instrumentation.

Whilst a popular music structure is expected, it is not specifically requested. The specified time-frame lends itself to popular music forms as well as extended EDM style remixes. Stronger performing learners will link their approach in structure to their chosen style.

Harmonic structures will likely remain fairly diatonic however key changes could be encountered as a creative method of building energy.

The lyrical content will likely dictate learners' responses regarding melody development with most instrumentation forming a supporting structure for the vocal melody. However, learners may choose to manipulate the original vocal melody to new notes or a different key using auto tune or other pitch manipulation tools. Any alterations to the melody will typically remain within diatonic constraints.

The saxophone and organ parts are somewhat unconventional from an EDM-remix point of view, should learners opt to remix in an EDM style. Stronger learners will find innovative ways to embed these musical parts, perhaps utilising significant and notable effects types to manipulate the sound.

Rhythm will likely be dominated by a core tempo which remains regimented throughout the arrangement. Popular EDM or electronic rearrangements will likely be regimented and quantised. There will be likely use of four-to-the-floor bass drum parts, however learners could pursue a drum n' bass approach and introduce syncopation to bass drum parts. A 16-beat hi-hat or other percussive part is likely. Should learners opt for a more alternative rock re-arrangement, there is likely some scope for a less quantised-more human approach to recording and sequencing.

Instrumentation style will vary with chosen genre. Learners may choose to add live-recorded performances to the existing track. Learners are required to add a software instrument and sampler part and these should conform to the chosen popular music style.

Instrumentation may be further defined by processors such as arpeggiators, for example, adding a rhythmic element to a traditional string or bass-type sound.

Learners may choose to reference other artists/producers when making planning decisions. When these decisions are informed by their knowledge of other artists' works, this may contribute towards crediting their level of understanding.

2	Task 2 – Development of sounds using sampling and synthesis		10

Level	Marks	Description
5	9 - 10	Sounds are used creatively, musically and imaginatively throughout. A variety of imaginative original sounds have been developed. Learner clearly explains intention of sounds used and provides consistent and detailed evaluation of how they were developed.
4	7 - 8	Sounds are used creatively and musically throughout. A variety of original sounds have been developed. Learner explains intention of sounds used and provides consistent explanation of how they were developed.
3	5 – 6	Sounds have been used musically throughout. A variety of sounds have been developed. Learner describes intention of sounds and provides description of development but detail may be inconsistent.
2	3 – 4	Sounds have been used musically, but not consistently. Variety of original sounds including at least 1 synth patch and 1 sampler patch. Learner produces some description of both intention and development of sounds, but is inconsistent in detail.
1	1 – 2	Sound used with limited musical outcome or inconsistently within piece. Variety of sounds developed may be limited to 1 synth patch or basic sampler patch. Learner may identify sounds developed with limited reference to intention and/or detail of process.
	0	Insufficient evidence for a mark to be awarded.

Indicative Content

Learners will likely stick to convention when adding sampler instrumentation to their track, however where justification is made, leftfield, or imaginative choices can be included and credited, as per the example below:

Adding a sitar to an EDM track; where sufficient musical / technical / stylistic justification is offered learners should be rewarded. For example: "*I have decided to sample a sitar and use this as my melodic hook during the chorus. I have made this decision to try and add a unique and original aspect to my remix".*

Learners may choose to utilise the audio files to generate sampler instruments (saxophone parts for example), this would be a creative use of the source audio and should be rewarded especially if it leads to a musically suitable sampler part.

Or

Using a NN-19 style effect on the vocal and then adding further manipulation such as pitch or reverse settings to produce an imaginative sound.

Learners should make use of supplied material to create one sampler instrument (e.g. resampling vocal part).

Use of zones when adding samples to a sampler instrument patch.

Use of one shot, reverse, pitch manipulation, volume, pan, ADSR when refining the sampled instrument sound.

Learners could use a range of synthesis types when creating instrumental patches: Subtractive synthesis, frequency modulation (FM), physical modelling etc.

Use of a variety of techniques when synthesising sounds; oscillator waveform choice, filter use, ADSR and LFOs.

3	Task 3 – Use of MIDI and audio editing tools				10

Level	Marks	Description
5	9 - 10	Musical outcome is effective throughout. Learner has made extensive use of a variety of sophisticated MIDI and audio editing techniques creatively. Learner has clearly stated intention for use of variety of tools in detail and evaluated process using technical terms throughout.
4	7 - 8	Musical outcome is generally effective, with some minor inconsistencies. Learner has made use of MIDI and audio editing techniques creatively. Learner has stated intention for use of variety of tools and provided detailed explanation of process. There may be some minor inconsistencies in level of explanation.
3	5 – 6	Musical outcome is generally effective, with some ongoing inconsistencies. Learner has made use of MIDI and audio editing techniques effectively. Learner has stated intention for use of variety of tools and described process. Technical terms may be inconsistent or detail not always described effectively.
2	3 – 4	Musical outcome may be limited in parts. Learner has made use of a limited variety of basic MIDI and audio editing tools correctively. Learner has stated some intentions, but process and/or technical terms are inconsistent.
1	1 – 2	Musical outcome may be limited. Learner has made use of basic MIDI or audio editing tools correctively. Learner has identified intention and tool but not described process.
	0	Insufficient evidence for a mark to be awarded

Indicative Content

As this is an intermediate stage of the assessment, the learners may not have completed all audio/MIDI edits required. However, if learner can demonstrate extensive or sufficient use of audio/MIDI editing processes and provide clear intentions for tool usage going forwards then higher-level awarding is appropriate.

If the above scenario is considered, then it may be appropriate to analyse whether the learner has followed through with their intentions in the final master or not.

An effective musical outcome will likely demonstrate 16 (or more) tracks which contribute melodic, rhythmic or ambient content to the overall remix. These tracks could consist of duplicates of the original material, however any duplicated parts will be manipulated to add some variation or an effect. Learners will have used audio/MIDI techniques to produce supporting musical parts and at this stage there will likely be a notable bass part, rhythm (percussion) part, melodic parts (either inspired by the original MIDI file, or a copy of the original MIDI part performed by a software instrument).

Audio/MIDI tools:

Any additional audio recordings will be cleanly captured. Audio files may be trimmed/cropped however cuts should be made at zero-crossing points, or quick fades used to avoid audible pops. Elastic audio tools may be used to address any timing/pitch correction required. Elastic audio tool use could extend to the original audio file; changing pitch and length of vocal.

The bass guitar audio file has some noises present (fret noise) throughout. It is expected that strong learners will trim the audio file to remove this noise (or other process like automation).

Looping of audio content is entirely appropriate for the genre.

Learners could use a range of MIDI input methods to add additional material, or work with the supplied MIDI file (or both). Step input, clicking-in, real-time performance (MIDI Instrument) are a variety of methods of data input.

Use of external MIDI controllers; using continuous controller messages to manipulate and record automation for different functions (for example, changing an LFO on a synthesiser).

Process:

Expected processes are likely variable and personal to the learner, however they may choose to reference research they have undertaken into their chosen style.

Learners may choose to import the supplied files and organise their project file into sections (structure). Learners could work in a sequential way, but would likely begin the process with adding key rhythmic elements like bass drums and hi-hats. Learners may use a hook or specific melodic idea as a starting point and then build other parts around (in support) of the idea. Although the vocal is likely to be the dominant melodic idea in most cases, it doesn't specifically have to be, and learners may utilise the vocal in support of an instrumental hook.

4	Task 4 – Use of mixing techniques and tools			10

Level	Marks	Description
5	9 - 10	Usage of tools and techniques explained and evaluated in detail using appropriate technical terms throughout. Creative and sophisticated use of a variety of mixing tools and techniques resulting in dynamic and engaging outcome with no audible issues.
4	7 - 8	Usage of tools and techniques explained in detail using appropriate technical terms with minor inconsistencies. Creative use of mixing tools and techniques resulting in a mix which is engaging and contains only minor inconsistencies.
3	5 - 6	Usage of tools and techniques described using appropriate technical terms but some inconsistency in attention to detail. Creative use of mixing tools and techniques resulting in a mix which is engaging and contains some inconsistencies.
2	3 - 4	Usage of tools is identified but response is limited in terms of description. Mix tools and techniques used to produce a mix which may have ongoing flaws.
1	1 – 2	Usage of some tools is identified. Mix tools and techniques used to produce a mix which may have some noticeable and substantial ongoing flaws.
	0	Insufficient evidence for a mark to be awarded.

Indicative Content

Learners may choose to use extreme settings when using dynamics processors/effects. An example of this could be the use of a sidechain compressor to create a 'pumping' effect over the entire mix. Learners may not reference this technique in their written explanations, however this type of approach shouldn't be considered an audible issue unless it goes beyond the conventions of their chosen style.

The effect of dynamics processors such as compressors and multi-band compressors, limiters will likely be noticeable and not subtle.

Learners will pay attention to stereo space and use appropriate mixing tools to take advantage of the left and right channels:
- Static or automated panning
- Stereo Spreader or similar plug in use
- Use of phase manipulation to expand beyond conventional stereo
- Use of stereo effects plugins rather than mono effect plugins (i.e stereo chorus)

Use of reverberation and delay tools to create a larger sense of space as the original recording is quite dry.

Use of EQ to balance different sounds in the mix.

Use of harmonic exciters/manipulators to enhance extreme ends of the frequency spectrum (bass/treble).

Use of automation as a method of control and creative application (automated filter sweeps etc).

Use of filtering tools (LPF, HPF, BPF) automated to build or drop energy throughout the recording.

5	Task 5 – Use of mastering techniques and tools			10

Level	Marks	Description
5	9 - 10	Mastering techniques and tools explained and evaluated throughout in detail. Mastering tools and techniques used in a sophisticated manner to produce master which is consistent throughout. Noticeable improvements made in mastering stage from final mix.
4	7 - 8	Mastering tools and techniques explained in detail, but with some minor inconsistencies. Mastering tools and techniques used to produce two masters with some minor inconsistencies. Both masters saved in appropriate formats. Some broad improvement noticeable from final mix to master.
3	5 - 6	Mastering tools and techniques described using appropriate technical terms but some inconsistency in attention to detail. Mastering tools and techniques used to produce two masters with some inconsistency in attention to detail. Both masters saved in appropriate formats. Some limited improvement from final mix to master.
2	3 - 4	Usage of tools is identified but response is limited in terms of description. Mastering tools and techniques used to produce two masters with some inconsistency in attention to detail. May be limited in terms of improvement from final mix.
1	1 – 2	Some mastering tools identified. Mastering tools used to produce one master which has some noticeable ongoing flaws/or two masters which are not saved in appropriate formats.

		Application of mastering may not be appropriate or may have negative impact on mix.
	0	Insufficient evidence for a mark to be awarded

Indicative Content

There is scope for a number of approaches when producing a streaming or CD master. The mastered files will need to be assessed alongside the explanation provided by the learner.

Examples of appropriate applications of tools vs outcomes:

Streaming Master:

- Slight boost of HF content to help combat losses through compression.
- Slight boost of HF content to overcome deficiencies in consumer portable audio equipment. (cheap headphones etc.)
- LF boost to overcome ambient noise (e.g. city noise) when using portable audio equipment.
- Reduction in dynamic range (subjectively louder master) to overcome ambient noise (e.g. city noise) when using portable audio equipment.
- Possible introduction of reverb to compensate for an anechoic playback environment (headphones). However if this is the intention of the reverb is should be slight.

Formats:

- Linear PCM/PCM format is standard for online distribution with individual streaming services compressing content on their end to their own quality standards (often set by user, or variable based on service connection).
- Typical file formats are WAV and AIFF.
- Some higher quality services could utilise .FLAC format for audio.
- Standard format requirement: .Wav, 44.1kHz Sample Rate, 16-Bit (however a higher quality standard of .Wav file (24-Bit) would also be acceptable).

6	Task 6 – Evaluation			10

Level	Marks	Description
5	9 - 10	Learner effectively reviews all elements in detail. Provides detailed evaluative conclusions. Learner's review is evaluative throughout, coherently and engagingly structured.
4	7 - 8	Learner reviews all elements with detail in most areas. Conclusions not detailed in terms of evaluation. Review is explanative, with some areas of evaluation - but may contain some minor inconsistencies, structure is coherent.
3	5 - 6	Learner reviews all elements with detail in some areas. Conclusions lack detail. Review is explanative, but contains some inconsistencies, structure is generally coherent.
2	3 - 4	Learner's review covers all areas through use of descriptive statements. Conclusions may be limited to simple statements. Structure should be consistent but may not be coherent.
1	1 – 2	Learner's review does not cover all areas. Review will identify some processes. Structure may be limited to simple statements with no conclusion.
	0	Insufficient evidence for a mark to be awarded