



Mark Scheme (Results)

Summer 2025

Pearson Edexcel GCSE

Music Technology (8MT0)

Paper 04: Producing and Analysing

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

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Component 4: Producing and analysing 8MT0 04 2025 – Mark scheme

Question number	Answer	Mark
1(a)(i) Type 4	A Detuned sawtooth B is not correct because the sound has additional harmonic content and is not a pure tone. C is not correct because the sound does not have the harmonic content of a square wave. D is not correct because there is no LFO assigned to the filter cutoff frequency or amplitude.	(1)

Question number	Answer	Mark
1(a)(ii) Type 3	Many plug-in instruments use samples (1) to imitate real instruments. Synthesiser plug-ins are often modelled on classic analogue (1) synthesisers from the 1970s.	(2)

Question number	Answer	Mark
1(b) Type 1	Large choice of different timbres. (1) Can change the timbre after recording (1) Can layer more than one sound. (1) Timing can be edited/corrected/quantised. (1) Pitch can be edited/corrected. (1) Velocity can be edited (1) Note lengths can be edited/corrected. (1) Can delete wrong notes (1) Can play more complex parts than a human (1) No need for a bass guitar/bass guitarist/amplifier/microphone/DI box. (1) (max. 1 mark for equipment) Quick to try different ideas for arrangement in sequencer. (1)	(3)

Question number	Answer	Mark
1(c)(i) Type 1	(Hard/100%) Quantise. (1) do not accept partial/soft quantise. Manual snap to grid. (1)	(1)

Question number	Answer	Mark
1(c)(ii) Type 1	High / maximum velocity (1) beat 1/3 (1) Gives emphasis to that beat / makes louder / shapes phrasing / accent (1) Accept: 'human feel' even though part is still mechanical (1).	(2)

Question number	Answer	Mark
2(a) Audio Examiner	'MS q2.wav' shows the correct drum sounds for full marks. 1 mark for each correctly assigned drum sound that plays the correct rhythm, in sync throughout. To award both the crash and the ride, they must be distinct and the crash more crash-like than the ride. Max 3 if there are additional drums. Max 4 if the drum kit is not acoustic. Max 4 for poor balance. If the drums are not soloed, or metronome is switched on, then assess what can be heard clearly.	(6)

Question number	Answer	Mark
2(b) Type 1	Each drum can have: - control over level (1) - choice of pan (1) - different effects/reverb/delay (1) - different EQ (1) - different compression (1) - different gating (1) - quickly mute/solo individual drums (1) - different routing selection (1) - control over individual send levels (1) - different polarity/phase (1) Easier to use, e.g. kick, as a side chain signal (1) Can be exported/bounced as separate tracks (1)	(4)

Question number	Answer	Mark
3(a)(i) Type 1	Earth / grounding problem (1) High gain on amplifier (1) Damaged lead/loose connection (1) Interference from other electronic sources (1) Unbalanced cable (1)	(1)

Question number	Answer	Mark
3(a) (ii) Audio Examiner	All hiss removed at start (1) Both glitches removed (1) Edit attempted and first guitar chord not cut (1) If not soloed assess what can be clearly heard.	(3)

Question number	Answer	Mark
3(a) (iii) Audio Examiner	Chord and noise in bar 50 not present (1) Smooth fade starting on the last note (1) Musical fade that finishes between 49:1 and 49:4, so that edit at 49:4 is not audible (1) Allow quantisation noise at end of file as present in "MS Q3 guitar" Max 2 if not soloed.	(3)

Question number	Answer	Mark
3(b) (i) Type 1	Warm/valve/analogue sound (1) Authentic/natural sound (1) Maintain sound of amp/speaker combination (1) Guitarist can use personal amp settings (1) Guitarist can adjust level to taste / turn amp up loud (1) Can capture amp/spring reverb (1) No latency when monitoring amp timbre (1)	(1)

Question number	Answer	Mark
3(b) (ii) Type 1	Guitar amps are loud/have high SPL (1) Dynamic microphones good at handling high SPL (1) Reduce harshness of distortion/HF/narrow frequency response (1) Mid-range presence peak can make guitar stand out in the mix (1) Slow transient response give a more even signal/tames peaks (1)	(1)

Question number	Answer	Mark
3(b) (iii) Type 1	Front (and sides) (1) Reject sound from the back (1)	(1)

Question number	Answer	Mark
3(b) (iv) Type 1	Distortion/drive/fuzz <u>pedal</u> (1) Distortion/overdrive setting/turn up gain <u>on amp</u> (1)	(2)

Question number	Answer	Mark
4(a) (i) Type 4	B 1/8 note 1/8 note is 200ms at 150 bpm A It is not 1/16 note because this would be 100ms C It is not 1/4 note because this would be 400ms D It is not 1/2 note because this would be 800ms	(1)

Question number	Answer	Mark
4(a) (ii) Type 1	200ms Accept 160 - 240	(1)

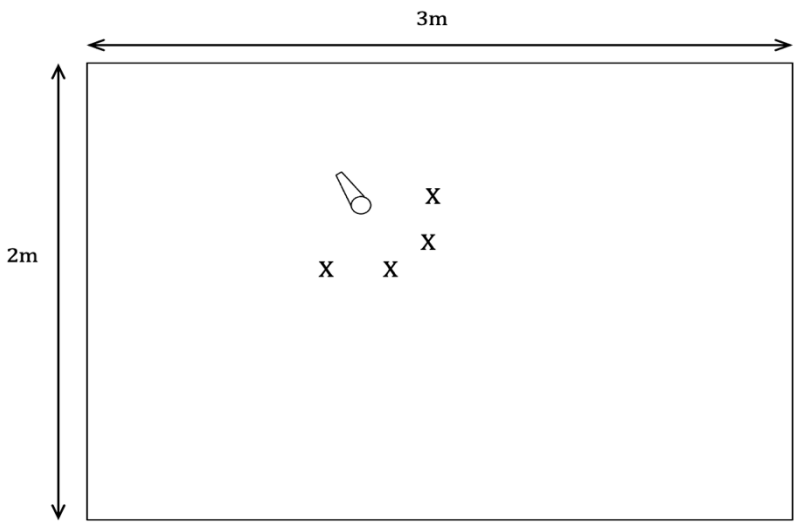
Question number	Answer	Mark
4(b) (i) Type 1	Signal/sound/noise is removed/reduced (1) below the threshold (1).	(2)

Question number	Answer	Mark
4(b) (ii) Type 1	Gate threshold is too low (1) Some parts of the spill are louder than others (1) Singer could be moving (1)	(1)

Question number	Answer	Mark												
4(b) (iii) Audio Examiner	<table><tr><th>mark</th><th>Vocal track noise removal</th></tr><tr><td>4</td><td>All spill removed (including bar 8), vocals are intact with no words cut, delay retains a single repeat at ends of phrases throughout. Allow cut of long delay in bar 26.</td></tr><tr><td>3</td><td>Slight spill still present, e.g. bar 8, 43. Vocals are intact with no words cut, delay retains a single repeat at ends of phrases throughout.</td></tr><tr><td>2</td><td>Delay is cut short in places, but all spill removed, vocals are intact with no words cut.</td></tr><tr><td>1</td><td>Vocals chopped at any point. OR Some editing but most spill still present</td></tr><tr><td>0</td><td>No change</td></tr></table>	mark	Vocal track noise removal	4	All spill removed (including bar 8), vocals are intact with no words cut, delay retains a single repeat at ends of phrases throughout. Allow cut of long delay in bar 26.	3	Slight spill still present, e.g. bar 8, 43. Vocals are intact with no words cut, delay retains a single repeat at ends of phrases throughout.	2	Delay is cut short in places, but all spill removed, vocals are intact with no words cut.	1	Vocals chopped at any point. OR Some editing but most spill still present	0	No change	(4)
	mark	Vocal track noise removal												
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	2	Delay is cut short in places, but all spill removed, vocals are intact with no words cut.												
	1	Vocals chopped at any point. OR Some editing but most spill still present												
0	No change													

Question number	Answer	Mark
4(c) (i) Type 2	Double tracking (1) Multitracking (1) Overdub (1)	(1)

Question number	Answer	Mark
4(c) (ii) Type 1	Use closed back (1) headphones (1) (Separate) monitor mix (1) Use talkback to communicate with singer (1) Make sure monitor mix has good balance (1) especially current take/hear themselves in headphones (1) Set overall level so vocalist is comfortable (1) and to avoid spill (1) Make sure vocal has reverb or delay (1) so vocalist stays in tune (1) and helps blend with rest of mix (1) Re-balance vocals if needed as each take is added (1) Pan existing takes to help the singer differentiate between them (1) Could monitor with speakers (1) that are out of phase (1) with microphone at null point (1) to reduce spill (1)	(5)

Question number	Answer	Mark
4(d) (i) Type 1	Four crosses, 30cm to 1m away from the microphone on the correct side of the microphone (1), Equidistant on the arc of a circle within 120 degrees of each other (1) (Ignore proximity to walls) 	(2)

Question number	Answer	Mark
4(d) (ii) Type 1	Shorter vocalists stand on risers (1) Place tall singer closer to compensate for quieter off-axis pickup (1) Adjust height/point mic to in-between the shorter and tall performers. (1) Add a spot mic (1)	(2)

Question number	Answer	Mark
5 (a) Audio examiner	B18 'Here' panned left (1) B19 'and you're moving very' panned right (1) B20 'Near' panned central (1) Any other panning added elsewhere in song, max 2 Panning correct but timing is out/glitches, max 2 If not hard panned, max 2	(3)

Question number	Answer	Mark
5 (b) Audio examiner	Flanger added (1) Stereo movement with similar settings to bar 38 (1) Starts from bar 38 to the end, with no change in level/glitch and nowhere else in song (1)	(3)

Question number	Answer	Mark
5 (c) Audio examiner	'MS Q5 mix.wav' shows the correct delay. Mono delay present on woah in b31 (1) Correct delay time in dotted minim (1) 1 st repeat same level and same number of repeats (last repeat must be under the vocal in b33 as evidence that copy & paste not used) with no change in level/glitch and nowhere else in song (1)	(3)

Question number	Answer	Mark
5 (d) Audio examiner	Some kind of EQ added in bars 8-13 (1) LPF similar to 6-7 (1) LPF with no change in level/glitch and nowhere else in the song (1) If it is hard to hear in the mix, examiners can use polarity reverse to reduce the volume of the vocals and guitar.	(3)

Question number	Answer	Mark										
5 (e) Audio examiner	Supplied QP audio: • bass very loud, normalized • vocals a little over • guitar under 'MS Q5 MIX unblanced.wav' is default fader positions. <table><tr><th>Mark</th><th>Balance the mix</th></tr><tr><td>3</td><td>All parts clearly audible. Drums and bass blend effectively.</td></tr><tr><td>2</td><td>Most tracks are balanced but there is some masking e.g. guitar too quiet</td></tr><tr><td>1</td><td>One track barely audible OR One track extremely dominant OR Additional tracks OR Levels of tracks are erratic OR One or more tracks partially present</td></tr><tr><td>0</td><td>Not all tracks present</td></tr></table>	Mark	Balance the mix	3	All parts clearly audible. Drums and bass blend effectively.	2	Most tracks are balanced but there is some masking e.g. guitar too quiet	1	One track barely audible OR One track extremely dominant OR Additional tracks OR Levels of tracks are erratic OR One or more tracks partially present	0	Not all tracks present	(3)
Mark	Balance the mix											
3	All parts clearly audible. Drums and bass blend effectively.											
2	Most tracks are balanced but there is some masking e.g. guitar too quiet											
1	One track barely audible OR One track extremely dominant OR Additional tracks OR Levels of tracks are erratic OR One or more tracks partially present											
0	Not all tracks present											

Question number	Answer		Mark
5(f) Audio examiner			(3)
	mark	Production of final mix	
	3	Music and delay/guitar tail not cut off at start and end (bar 50). Up to 1 second of silence at start and end. Output has no distortion and level is not noticeably quiet	
	2	Beginning and end of mix does not cut out. The beginning and / or end have more than 1 second of silence OR Mix output noticeably quiet OR Compressed OR Slightly distorted OR Cut tail Ignore previously assessed work e.g. guitar fade at end.	
	1	Obviously chopped start or end (notes cut at start or end) OR Mix output is unacceptably low or too high (distorted) OR Excessive compression OR metronome left on, OR any part is noticeably out of sync / out of tune / missing. OR any additional intrusive processing / panning Ignore previously assessed work e.g. drum edit or vocal pan issues.	
	0	No mix present	

Question number	Answer	Mark
6	A03 (4 marks)/A04 (12 marks) Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. Responses that demonstrate only A03 without any A04 should be awarded marks as follows: • Level 1 A03 performance: 1 mark • Level 2 A03 performance: 2 marks • Level 3 A03 performance: 3 marks • Level 4 A03 performance: 4 marks Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:	(16)

A03	A04
Microphone	
Dynamic Microphone.	Poor high frequency response. High-mid presence peak helps vocal cut through mix. Poor signal to noise ratio. SPL of singer not loud enough to warrant using a dynamic rather than condenser. Slow transient response makes it less sensitive to large changes in dynamics/evens-out dynamics of a performance. Simulates a live performance (as using same mic as live performance, the performance may be more expressive).
Cardioid. Close mic / 15-45cm.	Reduce reverb. Reduce noise. Reduce spill from piano. Can have reverb/effects added at mix stage. Proximity effect present. Could cause plosives.
Mic too high. Mic off axis.	Frequency response negatively affected, (e.g. less HF). Quieter. Greater gain required. More noise/reverb. Reduces sibilance. Singer could raise head so that mic is correct position. The high position of the mic would encourage the vocalist to keep their chin up, producing better vocal performance and tone.
Pop shield built into microphone. No (external) pop shield.	Prevents plosives. More likely to capture plosives than with a separate pop shield.
No cradle.	Unwanted vibrations. Use HPF to remove vibrations.

Room	
(Freddie is also playing the) piano.	The piano would spill on the vocal mic. Compressing vocal will increase spill. Reflections from piano/lid (wooden surfaces/string resonances). Piano stool might creak. Sitting not conducive to good vocal tone/breath control.
Amplifiers in room. Monitor wedge.	Could create noise/hum/spill. Turn off amplifiers. Unwanted reflections/resonances/rattles. Could cause feedback.
Not using headphones.	Can't hear backing track/click track.
Cable well tidied around mic stand.	No unwanted noise from cable movement.
XLR.	Balanced signal. Credit description of balanced. Reduced noise.
Walls made of absorbent material.	Reduces reverb.
Other	
	Suitable for a guide track/rehearsing / not for tracking final takes.
Allow: Headphone amp.	For monitoring. Headphones have less spill.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	• Demonstrates limited knowledge and understanding of production techniques/technology used, some of which may be inaccurate or irrelevant. (AO3) • Shows limited analysis and deconstruction of production techniques/technology used with unsuccessful attempts at chains of reasoning. (AO4) • Makes limited evaluative and/or critical judgements about the production techniques/technology used. (AO4) • Makes an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence (AO4).
Level 2	5–8	• Demonstrates knowledge and understanding of production techniques/technology used, which are occasionally relevant but may include some inaccuracies. (AO3) • Shows some analysis and deconstruction of production techniques/technology used with simplistic chains of reasoning. (AO4) • Makes some evaluative and/or critical judgements about the production techniques/technology used. (AO4) • Comes to a conclusion partially supported by an unbalanced argument with limited coherence. (AO4)
Level 3	9–12	• Demonstrates clear knowledge and understanding of production techniques/technology used, which are mostly relevant and accurate. (AO3) • Shows clear analysis and deconstruction of production techniques/technology used with competent chains of reasoning. (AO4) • Makes clear evaluative and critical judgements about the production techniques/technology used. (AO4) • Comes to a conclusion generally supported by an argument that may be unbalanced or partially coherent. (AO4)
Level 4	13–16	• Demonstrates detailed knowledge and understanding of production techniques/technology used, which are relevant and accurate (AO3) • Shows detailed and accurate analysis and deconstruction of production techniques/technology used, with logical chains of reasoning on occasion. (AO4) • Makes detailed and valid evaluative and critical judgements about the production techniques/technology used. (AO4) • Comes to a conclusion, largely supported by a balanced argument. (AO4)