



Pearson

# **Mark Scheme (Results)**

Summer 2017

Pearson Edexcel GCE  
In Music Technology (6MT02)  
Paper 01 - Listening and Analysing

edexcel 

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Publications Code 6MT02\_01\_1706\_MS\*

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## SECTION A

### 1. ABBA: Under Attack

Question Number	Question	Mark
<b>1(a)</b>	What is the tempo of this song?	<b>1</b>
	Acceptable Answers	
	C. 115 bpm	

Question Number	Question	Mark
<b>1(b)</b>	How is the effect at 0'30" on the line 'You know that I'm nobody's fool' achieved?	<b>1</b>
	Acceptable Answers	
	Vocoder	

Question Number	Question	Mark
<b>1(c)</b>	How does the arrangement change at 1'01"??	<b>1</b>
	Acceptable Answers	
	• Sustained synth chords / pads added	
	• High string (synth) added	
	• Additional backing vocals	

Question Number	Question	Mark
<b>1(d)(i)</b>	Describe the delay on the lead vocal in the verse	<b>2</b>
	Acceptable Answers	
	• Short / slapback / <200ms	
	• Semiquaver / 16th rate	
	• One or two repeats / low feedback	
	• Panned centrally with the original signal	
	• Delayed signal less bright	
	• Delayed signal quieter / fades	

Question Number	Question	Mark		
<b>1(d)(ii)</b>	Describe the changes in the reverb and delay settings on the lead vocal at the following points:	<b>2</b>		
	Acceptable Answers			
	<table border="1"> <tr> <td>0'44"</td> <td>Delay (allow reverb) removed / dryer (1)</td> </tr> <tr> <td>1'32"</td> <td>Added reverb (1) NOT reverb time increased</td> </tr> </table>		0'44"	Delay (allow reverb) removed / dryer (1)
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1'32"	Added reverb (1) NOT reverb time increased			

Question Number	Question	Mark
<b>1(e)</b>	Which of the following best represents the rhythm of the bass line in the first three bars? Puts a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	C	

Question Number	Question	Mark
<b>1(f)</b>	Describe the filtering on the repeated synth quavers between 0'17" and 0'25".	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• LPF/Low Pass Filter</li> <li>• Low resonance / Q</li> <li>• Envelope / ADSR</li> <li>• Cutoff decreasing on each note</li> <li>• Short attack</li> <li>• Short decay</li> <li>• Low sustain</li> <li>• Short release</li> </ul>	

(Total for question 1 = 10 marks)

## 2. Gentle Giant: The Advent Of Panurge

Question Number	Question	Mark
<b>2(a)</b>	When was this track recorded? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	B. 1966-1975	

Question Number	Question	Mark
<b>2(b)</b>	How is the style of this music best described? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	D. Prog Rock	

Question Number	Question	Mark						
<b>2(c)</b>	Describe the panning of the following instruments between 0'48" and 0'57".	<b>3</b>						
	Acceptable Answers							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Bass guitar</td> <td style="width: 50%; text-align: center;">Centre</td> </tr> <tr> <td style="text-align: center;">Organ</td> <td style="text-align: center;">Right / R</td> </tr> <tr> <td style="text-align: center;">Piano</td> <td style="text-align: center;">Left / L</td> </tr> </table>		Bass guitar	Centre	Organ	Right / R	Piano	Left / L
	Bass guitar		Centre					
	Organ		Right / R					
Piano	Left / L							
Ignore additional qualifying words								

Question Number	Question	Mark
<b>2(d)</b>	Which term best describes the vocal texture between 0'17" and 0'22"? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	D. Polyphonic	

Question Number	Question	Mark
<b>2(e)</b>	Name the solo instrument that enters at 1'51".	<b>1</b>
	Acceptable Answers	
	Trumpet / cornet / flugelhorn	

Question Number	Question	Mark
<b>2(f)</b>	Fill in the three missing pitches from the vocal line between 0'09" and 0'14".	<b>3</b>
	Acceptable Answers	

Look, do you see the man who is poor but rich?

(Total for question 2 = 10 marks)

### 3. Air: La Femme D'Argent

Question Number	Question	Mark
<b>3(a)</b>	Listen to the bass line between 0'26" and 1'01". Describe how the rhythm changes at 0'50".	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Less syncopated</li> <li>• More sustained / long notes / allow semibreve</li> <li>• Less rhythmic movement/fewer notes/more static</li> <li>• First two notes staccato</li> <li>• No ornamentation</li> </ul>	

Question Number	Question	Mark
<b>3(b)</b>	Describe the delay on the organ chords from 1'38".	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Quaver/semiquaver delay time / 150-230ms</li> <li>• Gradually decays / delayed signal is quieter</li> <li>• Several audible repeats / medium-high feedback (not long feedback)</li> <li>• Delay is panned right / moves right</li> </ul>	

Question Number	Question	Mark														
<b>3(c)(i)</b>	From 4'02", the chords are played by an upright piano. Identify <b>one</b> potential problem in capturing sound from an upright piano and provide <b>one</b> solution.	<b>2</b>														
	Acceptable Answers															
	<table border="1"> <thead> <tr> <th>Problem</th> <th>Solution</th> </tr> </thead> <tbody> <tr> <td>Strings are inaccessible / enclosed</td> <td>Open the lid/ Take off the front panels/Move it away from the wall and mic it from behind</td> </tr> <tr> <td>Mechanical noise</td> <td>Oil pedal/Change mic position</td> </tr> <tr> <td>Too much hammer noise</td> <td>Move mics away from hammers</td> </tr> <tr> <td>Large physical sound source</td> <td>Use stereo mics</td> </tr> <tr> <td>Too much ambience</td> <td>Move mics closer / use acoustic screens</td> </tr> <tr> <td>Hole in the middle</td> <td>Don't pan as wide / move mics closer together / third mic in the middle / X-Y pair instead of spaced pair</td> </tr> <tr> <td>Capture the full range of notes, low and high</td> <td>Use two mics, one on the low notes, one on the high notes</td> </tr> </tbody> </table> <p>Only credit capture solutions, not mixing solutions Only credit solutions that match the problem.</p>		Problem	Solution	Strings are inaccessible / enclosed	Open the lid/ Take off the front panels/Move it away from the wall and mic it from behind	Mechanical noise	Oil pedal/Change mic position	Too much hammer noise	Move mics away from hammers	Large physical sound source	Use stereo mics	Too much ambience	Move mics closer / use acoustic screens	Hole in the middle	Don't pan as wide / move mics closer together / third mic in the middle / X-Y pair instead of spaced pair
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Capture the full range of notes, low and high	Use two mics, one on the low notes, one on the high notes															

Question Number	Question	Mark
<b>3(c)(ii)</b>	Describe the the EQ on the piano.	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Restricted EQ (boxy) / Band pass / mid heavy</li> <li>• Lacking HF content / quite dull</li> <li>• Lacking LF content / thin</li> </ul>	

Question Number	Question	Mark
<b>3(d)</b>	*Name the percussion instrument that enters at 4'50".	<b>1</b>
	Acceptable Answers	
	Tambourine Accept only this spelling	

Question Number	Question	Mark
<b>3(e)</b>	Listen to the synth glissandos between 2'02" and 2'15". Which combination of effects has been used? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	B. Delay and reverb	

Question Number	Question	Mark
<b>3(f)</b>	What is the LFO routed to in order to provide the modulation on the synthesiser between 4'38" and 5'20"?	<b>1</b>
	Acceptable Answers	
	A. Cut-off frequency	

**(Total for question 3 = 10 marks)**



#### 4. Alice In Chains: Lab Monkey

Question Number	Question	Mark
<b>4(a)</b>	What is the interval between the two notes of the lead vocal between 00'36" and 00'44"? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	A. Minor second	

Question Number	Question	Mark
<b>4(b)(i)</b>	This track could be described as being inspired by grunge. Identify three stylistic elements of grunge heard in this recording.	<b>3</b>
	Acceptable Answers <ul style="list-style-type: none"> <li>• Riff based</li> <li>• Guitar based</li> <li>• Power chords</li> <li>• Heavy distortion</li> <li>• Relatively slow tempo</li> <li>• Dropped tuning</li> <li>• Dissonant harmony/melody</li> <li>• Minor key</li> <li>• Narrow melodic range</li> <li>• Repetitive</li> <li>• Technically unchallenging guitar solo</li> <li>• Heavily compressed drums</li> <li>• Big reverb on the drums</li> </ul>	

Question Number	Question	Mark
<b>4(b)(ii)</b>	What common textural element of grunge is missing?	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Quiet, less distorted verse</li> <li>• Dynamic contrast</li> <li>• Shouted / aggressive vocal</li> </ul>	

Question Number	Question	Mark
<b>4(c)</b>	How does the mix change at 1'30"	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Reduced level on guitar tracks</li> <li>• Vocals more prominent</li> <li>• Accept valid texture change in guitar parts e.g. fewer guitar parts / less distortion on guitars</li> </ul>	

Question Number	Question	Mark
<b>4(d)</b>	Describe how the vocals are mixed between 2'06" and 2'22".	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Panned across the spectrum</li> <li>• Low in the mix / lead vocal not prominent</li> <li>• Lead vocal on a par with BV's</li> <li>• Double tracking / automatic double tracking / chorus</li> </ul>	

Question Number	Question	Mark
<b>4(e)</b>	Describe how the main guitar riff has been mixed to create a thicker texture. This can be most clearly heard at 2'22".	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Double tracked</li> <li>• Stereo delay</li> <li>• Panned opposite</li> <li>• Distortion</li> <li>• LF boost / HF boost / mid cut</li> </ul>	

(Total for question 4 = 10 marks)

## SECTION B

Answer BOTH questions

Special focus style - Rock And Roll

### 5. Beverley Knight: Ain't Nothin' But A Kiss

Question Number	Question	Mark						
<b>5(a)</b>	Using the given headings, complete the table below to identify <b>six</b> different elements of Rock and Roll heard in this track.	<b>6</b>						
	Acceptable Answers							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 30%; text-align: center; vertical-align: middle;">Rhythm</td> <td> <ul style="list-style-type: none"> <li>• Shuffle/swung</li> <li>• Triplets / 12/8</li> <li>• Syncopation</li> <li>• Grace notes/acciaccaturas</li> <li>• Rhythmic stops</li> </ul> </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">Harmony</td> <td> <ul style="list-style-type: none"> <li>• 12 bar blues / I/IV/V</li> <li>• Pentatonic scale</li> <li>• 7th chords</li> <li>• Blue notes / flattened 3rd</li> <li>• Open 5ths</li> <li>• Major key</li> </ul> </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">Performance techniques in piano solo from 0'44"</td> <td> <ul style="list-style-type: none"> <li>• Grace notes/acciaccaturas</li> <li>• Repeated triplets</li> <li>• Glissando, allow slide</li> <li>• Open 5ths/chordal</li> <li>• Octaves</li> <li>• Uniform volume/all loud</li> </ul> </td> </tr> </tbody> </table>		Rhythm	<ul style="list-style-type: none"> <li>• Shuffle/swung</li> <li>• Triplets / 12/8</li> <li>• Syncopation</li> <li>• Grace notes/acciaccaturas</li> <li>• Rhythmic stops</li> </ul>	Harmony	<ul style="list-style-type: none"> <li>• 12 bar blues / I/IV/V</li> <li>• Pentatonic scale</li> <li>• 7th chords</li> <li>• Blue notes / flattened 3rd</li> <li>• Open 5ths</li> <li>• Major key</li> </ul>	Performance techniques in piano solo from 0'44"	<ul style="list-style-type: none"> <li>• Grace notes/acciaccaturas</li> <li>• Repeated triplets</li> <li>• Glissando, allow slide</li> <li>• Open 5ths/chordal</li> <li>• Octaves</li> <li>• Uniform volume/all loud</li> </ul>
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NB: Do not credit the same response twice.								

Question Number	Question	Mark
<b>5(b)</b>	Name the keyboard instrument on this track that is not commonly heard in 50's Rock and Roll.	<b>1</b>
	Acceptable Answers	
	Organ / Hammond	

Question Number	Question	Mark
<b>5(c)(i)</b>	How would guitar distortion have been created in the 1950's?	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Overdriving the amp</li> <li>• Increasing the gain</li> </ul> Not slashed cone	

Question Number	Question	Mark

<b>5(c)(ii)</b>	Identify one other way of creating guitar distortion in 2017.	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Pedals</li> <li>• Plugins / software</li> <li>• Amp simulators</li> <li>• Distortion channel on amp</li> </ul>	

Question Number	Question	Mark
<b>5(d)</b>	This track was recorded in 2015. Without reference to guitar distortion, identify <b>six</b> ways in which the production differs from Rock and Roll tracks recorded in the 50's.	<b>6</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Stereo</li> <li>• Multiple mics / close mic'ed</li> <li>• No spill</li> <li>• Multitrack recording / allow overdubbing</li> <li>• Direct injection</li> <li>• Clear mix</li> <li>• No masking of instruments</li> <li>• No distortion on vocals/drums</li> <li>• No hiss / noise</li> <li>• Full frequency response</li> <li>• More use of compression</li> <li>• Mastered at a higher level</li> <li>• De-esser</li> <li>• No use of slap back</li> <li>• Drums well balanced</li> <li>• Digital reverb</li> <li>• DAW / software / plug ins / digital recording</li> <li>• Automation</li> <li>• Digital editing / quantise</li> <li>• Pop shield / no plosives</li> <li>• Allow autotune / pitch correction</li> </ul>	

Question Number	Question	Mark
<b>5(e)</b>	*How did Sun Records contribute to the development of rock and roll? You should support your answer with	<b>5</b>

	reference to an artist.	
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Run by Sam Phillips</li> <li>• Who had eclectic tastes / variety of styles</li> <li>• Recorded local talent</li> <li>• (Mixing) country / blues / gospel</li> <li>• Led to rockabilly</li> <li>• White singers singing blues derived music</li> <li>• Popularising 'race music' for white audiences</li> <li>• Helped spread rock and roll from local radio audiences to the mainstream</li> <li>• Kept the instrumentation sparse and immediate</li> <li>• Raw, energetic performances</li> <li>• Use of slap back</li> <li>• Use of echo chambers</li> <li>• Extremely prolific</li> <li>• Artists will include Elvis Presley, Johnny Cash, Roy Orbison, Jerry Lee Lewis, Carl Perkins et al</li> <li>• AOV</li> </ul> <p>Credit 4 marks for general bullet points and 1 mark for an appropriate artist.</p>	

(Total for question 5 = 20 marks)

## Special focus style - Rap and Hip Hop

### 6. *Jessie J: Wild (show and prove remix) feat. Big Sean and Dizzee Rascal*

Question Number	Question	Mark
<b>6(a)</b>	Describe the tonality of the chorus.	<b>1</b>
	Acceptable Answers	
	modal / minor / Aeolian / B minor / Bm  If any of these terms are present in the response, then mark correct.	

Question Number	Question	Mark
<b>6(b)</b>	Describe two ways in which the vocal sample starting at 0'05" has been treated.	<b>2</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Pitch shift / time stretched</li> <li>• Volume fades in</li> <li>• Variable cut-off frequency / EQ sweeps / LFO</li> <li>• Low pass filter/LPF</li> <li>• High and low cut / mids boosted / band pass filter</li> <li>• Moving panning</li> <li>• Cutting / looping / triggered / reversed</li> </ul>	

Question Number	Question	Mark
<b>6(c)</b>	Which best describes the rhythm of the snare sample between 0:12 and 0:14? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers	
	D. Triplet crotchets and triplet quavers	

Question Number	Question	Mark
<b>6(d) (i)</b>	Listen to the chorus between 0'41" and 0'47". (i) Fill in the boxes to identify the synth chords.	<b>3</b>
	Acceptable Answers  <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px 10px;">Bm</div> <div style="border: 1px solid black; padding: 2px 10px; background-color: #cccccc;"><b>A(maj)</b></div> <div style="border: 1px solid black; padding: 2px 10px;">Gmaj</div> </div> <p>If I go hard, let me tell you that it's worth it</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px 10px;">Dmaj</div> <div style="border: 1px solid black; padding: 2px 10px; background-color: #cccccc;"><b>A(maj)</b></div> <div style="border: 1px solid black; padding: 2px 10px; background-color: #cccccc;"><b>Bm</b></div> </div> <p>Play the right cards, I ain't afraid to work it</p>	

Question Number	Question	Mark
<b>6(d)(ii)</b>	Name the vocal technique that the singer uses on the words 'hard' and 'cards'.	<b>1</b>
	Acceptable Answers Tremolo / tremolando / vibrato / vib  If any of these terms are present in the response, then mark correct.	

Question Number	Question	Mark
<b>6(e)</b>	What phrase best describes the steps in the rising synth at 1'01"? Put a cross in the correct box.	<b>1</b>
	Acceptable Answers C. Microtonal	

Question Number	Question	Mark
<b>6(f)</b>	Describe how the rhythmic feel changes at 1'08".	<b>1</b>
	Acceptable Answers Half time	

Question Number	Question	Mark
<b>6(g)</b>	What controller has been used to modify the synth's pitch at 1'08" - 1'22"	<b>1</b>
	Acceptable Answers Portamento / glide / 5 / 65 / 84	

Question Number	Question	Mark
<b>6(h)</b>	What editing techniques have been used on the vocal sample between 2'37" and 2'45"?	<b>3</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Cut up / truncated</li> <li>• Copy / paste / looped / triggered / multiple repeats</li> <li>• Stuttered</li> <li>• Pitch bend</li> <li>• Rhythmic diminution</li> </ul>	

Question Number	Question	Mark
<b>6(h)</b> <b>i) (i)</b>	Listen to the section between 1'36" and 2'03". Describe how the mix of the bass synth changes at 1'50".	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Louder / more upfront</li> <li>• Brighter</li> </ul>	

Question Number	Question	Mark
<b>6(h)</b> <b>i) (ii)</b>	Give a reason for this change.	<b>1</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• To signify a new section in the song</li> <li>• It's the only melodic element</li> <li>• To signify the difference between the two artists</li> <li>• Textural contrast</li> </ul>	

Question Number	Question	Mark
<b>6(j)</b>	*Outline the key features of old school rap music in the 1970's. You should reference an important artist in your answer.	<b>4</b>
	Acceptable Answers	
	<ul style="list-style-type: none"> <li>• Derived from soul / funk / disco</li> <li>• DJ / use of turntables (vinyl)...</li> <li>• ... to create breaks / loops.</li> <li>• Drum machine / (TR)808 / (TR)909</li> <li>• Synthesizers</li> <li>• Loops performed rather than sampled</li> <li>• Block parties made the genre popular / breakdancing / graffiti artist</li> <li>• MC / toasting...</li> <li>• ... which was derived from dub...</li> <li>• ... which evolved into rapping.</li> <li>• Less rhythmically complex than later rap / less syncopated</li> <li>• Political lyrics / racism</li> <li>• Artists may include Afrika Bambaataa, Run DMC, Public Enemy, Sugarhill Gang, Beastie boys, Grandmaster Flash, DJ Kool Herc etc.</li> <li>• AOVF</li> </ul> <p>Credit 3 marks for general bullet points and 1 mark for an appropriate artist.</p>	

(Total for question 6 = 20 marks)