

Candidates should note that in order to align the notated score with the MIDI file, bars 1–3 are silent. The music begins at bar 4.

Section A: Analysis and Discrimination

Instructions for Section A:

1. Load the AUDIO CD into your CD player and listen to track 1.
2. Listen to the music while following the printed score.

You may listen to the CD as many times as you wish.

1. Look at the introduction (bars 4–11) and the middle section (bars 58–74) of the score.

(a) In which key does the piece begin? Put a cross in the correct box:

B major E major G# minor C# minor


(1)

(b) Which key does the piece modulate to in bar 67? Put a cross in the correct box:

B major E major G# minor C# minor

(1)

(c) Complete the table below, to define and explain the following score markings:

Bar	Part	Performance direction	Definition and explanation
5	Synth Brass	<i>sim.</i> (2)
5	Poly Synth	<i>vib...</i> (2)
68	Saw Wave	 (2)

Q1

(Total 8 marks)



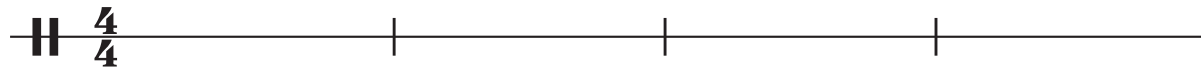
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2. (a) Look at the **Synth Bass** and **Synth Brass** parts in **bars 16–19** of the score. Identify the chords using conventional chord notation. All chords are in root position, with the root given by the Synth Bass. An example is given:

Bar	16	17	18	19
Chord	D#m ⁷			

(6)

- (b) Look at the **Drum Machine** part in **bars 24–27**. Using the percussion stave below, notate the rhythm played by the **snare drum** during these bars. You should include rests where appropriate.



(4)

Q2

(Total 10 marks)



Leave blank

3. Listen to the audio CD.

- (a) The style of music could be described as electro-pop. Which of the following bands is most famous for having produced electro-pop? Put a cross in the correct box:

The Human League AC DC Abba Pulp (1)

- (b) Electro-pop exhibits many stylistic features of disco. Identify **two** features of the track **on the CD** that show a disco influence. You may include musical or production features.

1
2
(2)

- (c) This recording was made by sequencing analogue synthesisers manufactured in the 1970s to achieve a warm rich tone. Identify **two** difficulties that a producer would have to overcome using this type of equipment as opposed to using modern digital synthesisers or sequencer plug-ins.

1
2
(2)

(Total 5 marks)

Q3



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4. For each of the following effects/production techniques, identify a track that features this effect/production technique and identify **two** ways in which it enhances the mix. An example has been provided.

Effect / production technique	Track as labelled in the score	How the mix is enhanced
2-second reverb	Square wave	<ul style="list-style-type: none">• Puts the part a long way back in the mix• Adds sustain to the really short notes
Double tracking	(1)	(2)
Chorus and 0.2-second reverb	(1)	(2)
Stereo delay timed to 8th notes	(1)	(2)

(Total 9 marks)

Q4



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5. Listen to the **backing vocal** parts in part of the middle section (**bars 58–66**) at 1:42–1:58. They have been sampled and repeated throughout this section with various types of processing. Identify how the backing vocal samples have been processed in each bar. Briefly explain how each process changes the sound. An example has been provided.

Bar	Start Time	Process	Change to sound
58–60	1:42	Low Pass Filter	Removes high frequencies Cut-off frequency slowly rises over 3 bars
62	1:49	 (1) (1)
63	1:51	 (1) (1)
64	1:53	 (1) (1)
65–66	1:55	 (1) (1)

(Total 8 marks)

Q5

TOTAL FOR SECTION A: 40 MARKS



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7
Turn over

Section B: Controlling and Interpreting MIDI data

Instructions for Section B:

1. Load/open your music sequencing software.
2. Import the file *normal.mid* from the MIDI File Data CD ROM into your music software. If you are using Cubasis 4 or Cubasis 5 you should import the *offset.mid* file instead.
3. Ensure that you have a General MIDI sound module/sound card/keyboard connected to your computer.
4. Plug your headphones into your sound module/sound card/keyboard.
5. Listen to the MIDI file version of the examination music whilst following the printed score.

You may listen to the music as many times as you wish.

In order to answer this section you will need to examine the MIDI file data using a range of editors within your music sequencing software.

Candidates should note that in order to align the notated score with the MIDI file, bars 1–3 are silent. The music begins at bar 4. However, it is important to play the MIDI file back from the beginning so that the header data is properly loaded.



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6. (a) Using the table below, give the program change number used to select the instrument for the tracks below.

Track	MIDI channel	Program change number
Lead Vocals	1	(1)
Backing Vocals 1	2	(1)

- (b) Explain why **Backing Vocals 2** and **Backing Vocals 3** are on separate MIDI channels even though they are using the same timbre.

.....
.....
(2)

- (c) There are subtle tempo changes in the MIDI file.

- (i) What happens to the tempo in the chorus, and what is the intended musical effect?

.....
.....
(2)

- (ii) Identify two bars that contain tempo changes.

Bar

Bar

(2) Q6

(Total 8 marks)



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7. Analyse the **Saw Wave** track in **bars 67–74**.

(a) Using the table below, identify errors in **pitch** in the MIDI file compared with the score. The first line has been completed as an example.

	Bar number IN SCORE	Correct Pitch IN SCORE	Incorrect Pitch IN MIDI FILE
Example	68	E	D#
1	(1)	(1)	(1)
2	(1)	(1)	(1)

(b) Using the table below, identify the most appropriate quantise setting for the keyboard solo in the given bars. The first line has been completed as an example.

Bars	Quantise setting
67	16
68	(1)
69–70	(1)
71–72	(1)
73–74	(1)

(Total 10 marks)

Q7



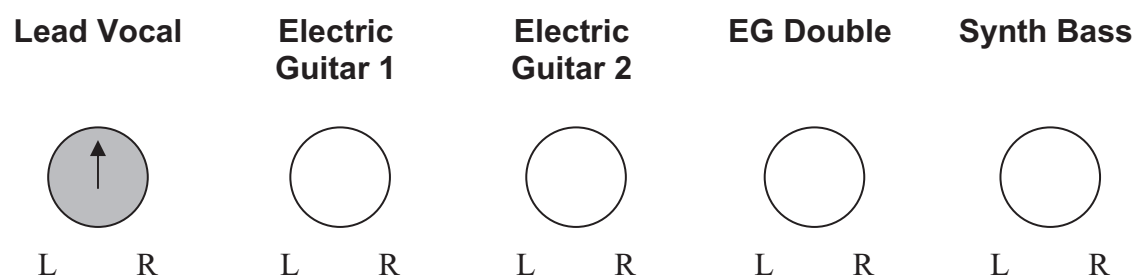
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8. MIDI controller events have been used at the start of this MIDI file to control various mix parameters. This data is transmitted in **bars 2–3**.

(a) Using the table below, identify the **main volume** and **chorus** settings for each of the following tracks.

	Main Volume	Chorus
Electric Guitar 1	(1)	(1)
Electric Guitar 2	(1)	(1)
Synth Bass	(1)	(1)

(b) Using the diagram below, mark the pan settings for each of the following tracks. An example is given.



(4)

Q8

(Total 10 marks)



9. The table below shows some MIDI data from the middle of a sequence. The start and end times of the events are given in bars:beats:16th notes:ticks.

Start	End	Status	Data 1	Data 2	Chn	Info
24.04.01.000	-	Program Change	26	-	5	-
24.04.01.060	-	Controller	11	116	5	-
25.01.01.000	25.04.03.023	Note	C4	109	5	-
25.01.01.060	-	Pitchbend	32	65	5	222
25.01.01.090	-	Pitchbend	102	76	5	1689
25.01.02.000	-	Pitchbend	18	101	5	4780
25.01.02.030	-	Pitchbend	60	121	5	7362
25.01.02.060	-	Pitchbend	127	127	5	8191
26.01.01.000	26.04.03.027	Note	D4	96	5	-
26.01.03.049	-	Pitchbend	0	64	5	0

(a) This sequence is played on an acoustic guitar. Which MIDI command selects this instrument?

.....

(1)

(b) What is the velocity of the first note played?

.....

(1)

(c) Which direction is the pitch being bent in bar 25? Put a cross in the correct box.

Up Down Up and Down Stays the same

(1)

(d) What performance technique is the programmer trying to replicate in bar 25?

.....

(1)

(e) Bar 26 will not play back as the programmer intended. What programming mistake did they make? How would this mistake be corrected?

.....

.....

.....

.....

(3)



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(f) In the table below, explain the **meaning** of the data byte numbers for the note and the controller events. Also state the range of possible values for **Data 2** for each.

	Start time	Data 1	Data 2	Range of values for Data 2
Controller	24.04.01.060	(1)	(1)	(1)
Note	25.01.01.000	(1)	(1)	(1)

(g) The **range of values** of pitchbend is larger than that of a continuous controller.

(i) What is the **range of values** of pitchbend?

..... (1)

(ii) How is this larger range of values achieved?

.....
.....
..... (3)

(Total 17 marks)

Q9



10. MIDI file programmers use a combination of sequencing techniques to achieve a musical performance.

Using the table below, explain how the programmer has used sequencing techniques to recreate musical features. An example has been provided.

Bar reference IN SCORE	Track	Musical Feature	Sequencing techniques used to recreate the musical feature
7	Synth Bass	Pitch slide	<ul style="list-style-type: none"> • Use of pitchbend • Bends down through note to maximum downward inflection • Resets to centre on beat 3
1 11	Kick & Snare	Drum machine fill	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p style="text-align: right;">(3)</p>
2 12–22	Lead Vocal	Realism of saxophone player	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p style="text-align: right;">(3)</p>



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3	24-31	Electric Guitar 1	Wah-wah pedal (3)
4	24-31	Electric Guitar 2	Double Tracking (3)
5	38-48	Square Wave	Placement in back of mix (3)

(Total 15 marks)

Q10

TOTAL FOR SECTION B: 60 MARKS
TOTAL FOR PAPER: 100 MARKS

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