The questions on this worksheet have been taken from the Original OCR GCSE Computing Specimen Paper

6-A-Day – Computer Science GCSE (3)

Q1

Data about television channels are stored in the CHANNEL table. Part of this table is shown below.

ChannelID	ChannelName	ChannelType	Broadcaster	HD
346	ETV News	News	ETV	False
347	Screen One	Movies	ETV	True
349	BLING one	General	Bling	True
350	Vivo	Documentary	ETV	False
351	Nature	Documentary	Bling	False
355	Screen One	Movies	Bling	True

Data about programmes that will be broadcast are stored in the PROGRAMME table. The data about each programme includes the channel on which it would be broadcast.

(i) Explain how a foreign key can be used to connect the PROGRAMME table to the CHANNEL table.

....

.... **[2]**

(ii) Explain why the programme data is stored in a separate table from the channel data.

....

.... **[3]**

Q2

Zak is writing a program that uses an array called WordList. This array contains 10 foreign words in alphabetical order. The contents of the array are shown below.

WordList (1)	akesi
WordList(2)	esun
WordList(3)	jaki
WordList(4)	kala
WordList(5)	lipu
WordList(6)	mama
WordList(7)	nasa
WordList(8)	olin
WordList(9)	taso
WordList(10)	walo

(a) The value of WordList(1) is "akesi".

Complete the following statements.

(i) The value of WordList(6) is ....

(ii) The value of WordList(.......) is "taso

[2]

Q3

A compiler and an interpreter are two different types of translator.

Describe **one** difference between a compiler and an interpreter.

....

.... **[2]**

Q4	An artist is recording sound using a computer. The graph below represents the pressure wave of the sound being recorded.
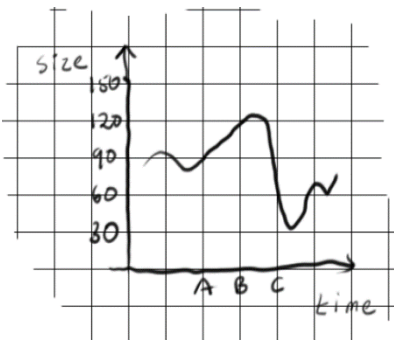
At point A on the graph, the size of the sound wave is 90. This is stored digitally using the binary value of 0101 1010 (or 5A in Hex).

Complete the table below to show how points B and C are stored:

	Point A	Point B	Point C
Size	90		
Binary Value	0101 1010		
Hex Value	5A		

[6]

Q5

Explain why a program written in a high level language needs to be translated before it can be executed.

....

....

....

....

....

.... [3]

Q6

Vimal is writing a program to convert the time from the 24 hour clock to the 12 hour clock.

Here is an extract from his program. This extract contains **two** errors.

```
IF (hours > 12) ADN (hours < 24) THEN
   hours = hours + 12
END IF
```

Explain why there is an error in the **second** line, and state what type of error this is.

Explanation

....

....

Type of Error:.. [3]