

## 6-A-Day – Computer Science GCSE (2)

Q1

(a) The table below contains statements about the functions of the CPU.

Tick **one** box in each row to show whether the statement is true or false.

	TRUE	FALSE
It performs arithmetic operations on data.		
It fetches and executes instructions		
Input and output devices are plugged into it		
It moves data to and from memory locations.		

[4]

Q2

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

(a) Explain why there is an error in the **first** line, and state what type of error this is.

Explanation

.....  
.....

Type of Error:..... [3]

Q3

A file contains 5120 bytes. Calculate the size of the file in kilobytes.  
You must show your working.

.....  
.....  
.....  
..... [2]

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

Q4

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

State the primary key for the CHANNEL table and give a reason for your choice

Primary Key ..... [1]

Reason

.....  
 ..... [1]

Q5

Some computers are available for public use.  
 Explain why the libraries need the following security measures.

User access levels

.....  
 ..... [2]

Firewalls

.....  
 ..... [2]

Q6

Debbie has a program on her mobile phone, which calculates the cost of the calls she has made.

(a) The program uses the following variables.

State the most appropriate data type for each variable.

Variable name	Purpose	Data type
Network	The name of the mobile phone network operator used (e.g. Toki Weka)	
CallLength	The length of a call made. (e.g. 1.5 for one and a half minutes)	
SameNetwork	Whether a call was made to a phone on the same network	
TotalCalls	The total number of calls made (e.g. 10)	
RunningCost	The calculated cost of all calls (e.g. £12.00)	

[5]