The questions on this worksheet have been taken from the 2018 OCR GCSE Computer Science Paper 2

6-A-Day – Computer Science GCSE (p2.10-2016)

Q1	Convert the binary number **10110101** to its hexadecimal equivalent. .... **[2]**
Q2	Show the effect of a binary shift right of two places on the binary number **00110100**. .... **[1]**
Q3	Describe a shift that can be used to double the value of the binary number **00100100**. .... **[2]**

Q4

The table below (Fig. 3) shows the ASCII codes for a number of characters.

The lower case ASCII code for a character can be found by adding **0100000** to the upper case version.

Character	ASCII code
R	1 0 1 0 0 1 0
r	1 1 1 0 0 1 0
A	1 0 0 0 0 0 1
a	
E	1 0 0 0 1 0 1
e	

Fig. 3

(i) Complete the table above by filling in the missing ASCII codes. **[2]**

Q5

(ii) Compare the use of ASCII and Extended ASCII to represent characters.

....

....

....

....

....

.... **[2]**

Q6

An infinite loop is where a section of a program repeats indefinitely.

(a) For each of the pseudocode algorithms shown below, tick the appropriate box to show whether they will loop infinitely or not.

Pseudocode	Will loop infinitely	Will **not** loop infinitely

`01  x = 0`
`02  while True`
`03     print x`
`04  endwhile`		

`01  x = 0`
`02  while x < 10`
`03     print x`
`04  endwhile`		

`01  x = 0`
`02  while x < 10`
`03     print x`
`04     x = x + 1`
`05  endwhile`		

`01  y = 5`
`02  for x = 1 to y`
`03     print x`
`04  next`		

[4]