

CS2100 MID-TERM TEST ANSWER SHEET

AY2017/18 Semester 2

STUDENT NO.:

A	0	1							
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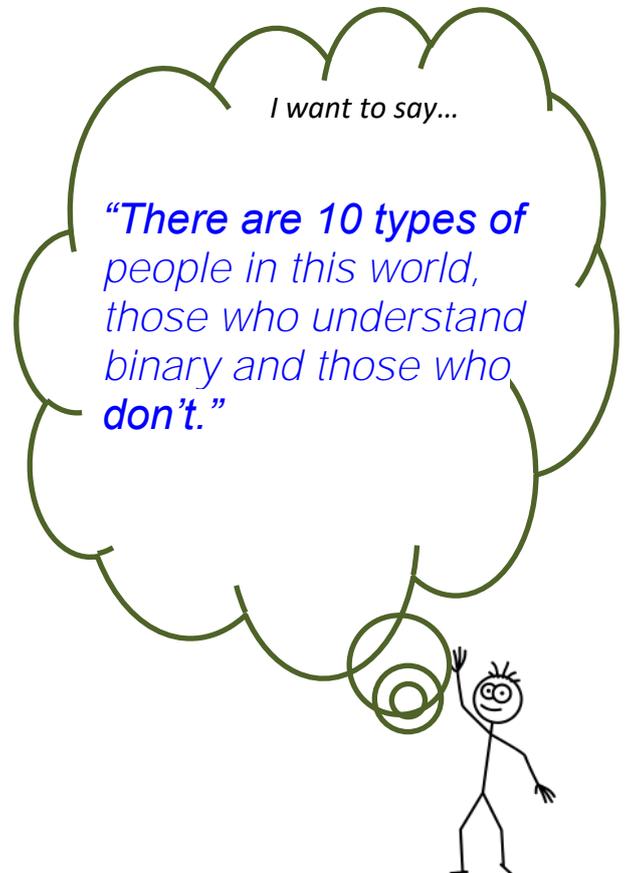
/ 40

TUTORIAL GROUP:

TOTAL SCORE

Write your particulars above legibly using a **pen** (not pencil!). Ensure that your matriculation number is correct and complete (your matriculation number comes with a letter at the end). You may use pencil for your answers below.

(Any thought about the module? Share it in the thought bubble on the right. This will not be graded! ☺)



Bonus

0. 1. 2.
3. 4. 5.

6.
[3]

C4007000: -513.75

7a.
[1]

mystery(20) returns 0

7b.
[1]

mystery(32) returns 1

7c.
[1]

mystery(x) returns 1 if x is a power of 2.

Please turn over...

8.
[3]

55 33 44

9.
[6]

178 62 d

10.
[4]

Registers File				ALU		Data Memory	
RR1	RR2	WR	WD	Opr1	Opr2	Address	Write Data
<u>\$9</u>	<u>\$10</u>	<u>\$8</u>	<u>[\$9]+[\$10]</u>	<u>[\$9]</u>	<u>[\$10]</u>	<u>[\$9]+[\$10]</u>	<u>[\$10]</u>

11a.
[3]

3	5	13	22	51
A[0]	A[1]	A[2]	A[3]	A[4]

11b.
[4]

```
int i, j;
for (i=0; i<n; i++) {
    for (j=i+1; j<n; j++) {
        A[j] += A[i];
    }
}
```

11c.
[2]

02004020

11d.
[2]

0810002D