**CS2106 Operating Systems**

**Assignment 2 – Processes and Threads**

**Answer Book**

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Question 1

This is what I see on the screen: Parent sent message: Hello child! and 128

My single statement description is: The child process receives the string and integer input from the parent process via a pipe.

Question 2

The sizeof function returns the size of the an object in bytes.

Question 3

My completed code is attached below:

Question 4

The threads print out of order. The reason is because printf() is not atomic, so the outputs get interleaved.

Question 5

NOT SURE

The threads do share memory. Referring to ctr, I conclude this because ctr is incremented each time child function is called.

Question 6

NOT SURE ALSO

The values of ctr as printed by the threads are wrong. The reason is because all the threads are updating the same memory location.

Question 7

The variable "i" must be cast into void \* because...

In child it does not have to be cast back into int because...

Question 8

The changes I made are...

My code is attached here:

Question 9

The value of glob printed by main is ...

Question 10

The changes we made are...

Question 11

The value printed is corrrect/incorrect. This is because...

Question 12

The threads now update glob correctly/incorrectly. This is because...

Question 13

The changes we made were...

Our program is attached below: