

Student Name: Goh Wei Zhe

Score: 98

Instructions

This quiz is graded against **100 points total** with exactly 100 points allotted to the questions. You are to **write legibly and show all workings** to derive your answers. Write in the given answer spaces below each question. Do assist by marking **“//”** at your final answer of each question to assist with grading.

Read the following code snippets and write the expected outputs in the answer boxes that follow. You may assume that all necessary includes are present. 4 questions, 25 marks each.

```
int a, b, c, i, j;
a = 1; b = 2; c = 3;
for (i = 0; i < a + b; ++i)
{
    printf("#");
    for (j = i; j < b + c; ++j)
    {
        printf("*");
    }
    printf("\n");
}
```

Answer:

```
#****\n
#****\n
#***\n
```

```
int i = 10;
switch(i)
{
    default: printf("Default");
    case 9: printf("9");
    case 8: printf("8");
    case 7: printf("7");
    case 6: printf("6");
    case 5: printf("5");
    case 4: printf("4");
    case 3: printf("3");
    case 2: printf("2");
    case 1: printf("1");
    case 0: printf("0");
};
```

Answer:

```
Default9876543210
```

```
int i, j;
j = 0;
for (i = 0; i < 10; ++i)
{
    j += i;
    if (j % 2)
        continue;
    printf("%d\n", j);
}
```

Handwritten calculations:

$j = 1 - j$	
$0 + 0 = 0$	$21 + 7 = 28$
$0 + 1 = 1 \times$	$27 + 8 = 36$
$1 + 2 = 3 \times$	$36 + 9 = 45 \times$
$3 + 3 = 6$	
$6 + 4 = 10$	
$10 + 5 = 15 \times$	
$15 + 6 = 21 \times$	

Answer:

0 ln
6 ln
10 ln
28 ln
36 ln

(A red diagonal line is drawn through the last two lines)

```
char buffer[20] = "C Programming Rocks";
char* aPtr = buffer;
char* bPtr = &buffer[18];

while (aPtr < bPtr)
{
    printf("%c : %c\n", *aPtr, *bPtr);
    ++aPtr; --bPtr;
}
printf("%s\n", buffer);
```

Handwritten annotations:

- Arrows pointing to 'aPtr' and 'bPtr' in the while loop condition.
- A '18' written below '&buffer[18]'.
- A '0' written below 'aPtr' and a '6' written below 'bPtr' in the while loop condition.

Answer:

~~C : k ln~~ starts from 's'

: c ln

P : o ln

r : R ln

o : ln

g : g ln

r : n ln

a : i ln

m : m ln

C Programming Rocks ln

(A red diagonal line is drawn through the last line)

Handwritten notes:

- 2