CS0.101: Computer Programming Quiz 1 (Fall 2022)

Duration: 45 mins

Question 1: (5 marks)

Write a program to find the sum of first n odd numbers. Here n can be taken to be an input from the user.

Question 2: (5 marks)

Arrange the following in decreasing order of space taken: int, char, double, short. Also mention the space taken by each of these data types.

Question 3: (5 marks)

Describe the One's complement and Two's complement method of storing negative numbers. What advantage does the Two's complement method have over One's complement method?

Question 4: (5 marks)

Predict the output of the following code fragment assuming it is inside a valid main() function

```
int i=256, j=256;

i >>= 8;

j <<= 24;

printf("%d%d\n",i, j);

j left
```

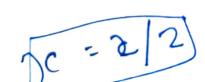
Question 5: (5 marks)

Spot errors(if any) in the following code fragments:

1. This fragment is supposed to print x = 0.

```
int x=5;
while(x > 0);
x/=2;
printf(x=\%c \ n", x);
```

2. float a=12.25, b=12.52; if(a = b) printf("a and b are equal");



(1)

Question 6:

What is output of the following programs with proper justification?

```
1. (5 marks)
   #include<stdio.h>
   int main()
   {
   printf("%d\%d\%d\n",x,y,
   return 0;
   }
2. (5 marks)
   #include<stdio.h>
  int main()
  int p, q, r;
  p = 8 > 5 > 2;
  q = 8 > 5 > 0;
  r = 8 > 5 > 1;
  printf("%d%d%d\n", p, q, r);
   return 0;
   }
3. (5 marks)
   #include<stdio.h>
   int main()
  int i=1, j=1;
  for (;;)
  if (i > 5)
         break;
  else
                                  ) - L
        j + =i
  printf("%d \setminus n", j);
  i + = j;
  return 0;
```

```
int p, q, r;
       p = 9;
       q = 10;
       r = p == q;
       printf("%d \setminus n", r);
       return 0;
Question 7: (5 marks)
Write a program to print "Hello world" without using the semicolon ";" anywhere in the program.
```

4. (5 marks)

int main()

#include<stdio.h>