1.What is the output of the following C program?

```
#include <stdio.h>
int main()  {
double a[2]=20.0,25.0,* p,* q; p=a; q=p+1;
printf ("%d, %d", (int) (q-p), ( int)(* q- * p));
return 0;}
```

A. 4,8 B. 1,5 C. 8,5 D. 1,8

2.

Consider the following C function definition.

```
int f X(char * a)
{
 char * b = a;
while (*b)
 b ++;
return b - a;}
```

Which of the following statements is/are TRUE? **[CS2024-2]**

a)The function call f X("a b c d") will always return a value

b)Assuming a character array □ is declared as char □[]= "abcd" in main ( ), the function call □□ (c) will always return a value.

c)The code of the function will not compile

d)Assuming a character pointer C is declared as char ∗ C= "abcd" in main (), the function call fX(c) will always return a value

3.Consider the following C program. Assume parameters to a function are evaluated from right to left. **[CS2024-2]**

```
#include <stdio.h>

int g( int p) { printf("%d", p); return p; }

int h(i nt q) { printf("%d", q); return q; }

void f (int x, int y) {

g(x); h(y); }

int main() {

f (g(10), h(20));}
```

Which one of the following options is the CORRECT output of the above C program?

A.20101020

B.10202010 C. 20102010 D. 10201020

4.

30. What will be the output of the following C program?

```
void count(int n){
  static int d=1;
     printf("%d ", n);
     printf("%d ", d);
     d++;
     if(n>1) count(n-1);
     printf("%d ", d);
  }

  void main(){
     count(3);
  }
```

(GATE 2016)

a. 3 1 2 2 1 3 4 4 4
b. 3 1 2 1 1 1 2 2 2
c. 3 1 2 2 1 3 4
d. 3 1 2 1 1 1 2

Answer (a)

1. Consider the following snippet of a C program. Assume that swap(&x, &y) exchanges the contents of x and y.

```
int main () {
    int array[] = {3,5,1,4,6,2};
    int done = 0;
    int i;

    while  (done == 0) {
        done = 1;
        for (i = 0, i<=4; i++) {
            if (array[i]< array[i+1]) {
                swap (&array[i], &array[i+1]);
                done = 0;
            }
        }
        for (i=5; i>=1; i–) {
            if (array[i] > array [i-1]) {
                swap(&array[i], &array[i-1]);
                done = 0;
            }
        }
        printf(“%d”, array[3]);
}
```

The output of the program is ___3___

1. Consider the following C program.

```
#include<stdio.h>
int main () {
    int m = 10;
    int n, nl;
    n = ++m;
    n1 = m++;
    n–;
    –n1;
    n-= n1;
    printf (“%d”,n),
    return 0;
```

}
The output of the program is ____0_____

1. Consider the following function implemented in C:
2. void printxy(int x, int y) {
   int *ptr;
   x=0;
   ptr=&x;
   y=*ptr;
   *ptr=1;
   printf(“%d, %d”, x, y);
   }
   The output of invoking printxy(1,1) is
   (GATE 2017)
   a. 0, 0
   b. 0, 1
   c. 1, 0
   d. 1, 1