

National University of Computer and Emerging Sciences, Islamabad Campus



Course:	Programming Fundamentals	Course Code:	
Program:	BS (Computer Science)	Semester:	Fall 22
Duration:	25 Minutes	Total Marks:	
Paper		Weight Name:	
Date:	05-Dec-2022	Roll No.	
Section:			
Exam:	Quiz		

Instruction/Notes:

1. Consider the following code segment. Choose the correct option.

```
float f = 10.5;
float p = 2.5;
float* ptr = &f;

(*ptr)++;

*ptr = p;

cout << *ptr << " " << f << " " << p;
```

Options:

- I. 2.5 10.5 2.5
- II. 2.5 11.5 2.5
- III. 2.5 2.5 2.5
- IV. 11.5 11.5 2.5

2. What will happen in this code

```
int a=100;
int b= 200;

int *p=&a;
int *q=&b;

p=q;
```

Options:

- I. b is assigned to a

- II. p now points to b
- III. a is assigned to b
- IV. q now points to b

3. Write down the output of the code segment given below.

```
#include <iostream>
using namespace std;

void swap(int*, int*);

int main()
{
    int a = 1, b = 2;

    cout << "Before swapping" << endl;
    cout << "a = " << a << endl;
    cout << "b = " << b << endl;

    swap(&a, &b);

    cout << "\nAfter swapping" << endl;
    cout << "a = " << a << endl;
    cout << "b = " << b << endl;
    return 0;
}

void swap(int* n1, int* n2) {
    int temp;
    temp = *n1;
    *n1 = *n2;
    *n2 = temp;
}
```

Output: _____

4. What would be the output of the program

```
#include <iostream>
using namespace std;

void generateArray(int *a, int si)
{
    for (int j = 0; j < si; j++)
    {
        a[j] = rand() % 9;
        cout << a[j] << " ";
    }
}
```

```
}  
}
```

```
int main()  
{  
    const int size=5;  
    int a[size];  
  
    generateArray(a, size);  
  
    return 0;  
}
```

Output: _____

5. Write a program using two-dimensional array to store the following values

4	40	45	35	12
11	30	35	40	10
23	20	25	20	6
35	15	18	22	5
49	23	15	23	6

Now, calculate the sum of all diagonals as shown in the above figure.