University of South Asia

Quiz 01			
Session	**Spring 2025**	**Total Marks**	**10**
Subject	**Data Structure and Algorithms**	**Date**	**30-01-2025**

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Program	BSCS	**Section**	**F**

Instructions:
- Read each question carefully and understand it fully before answering.
- Write only the required output where needed; avoid unnecessary code or explanations.
- Focus on clear, to-the-point answers.

Q1: Write the output of the following code snippet [CLO-3] (3 Marks)

```
void Function1(int &variable)
    {
          variable = 20;
    }

void Function2(int array [])
    {
         array [0] = 10;
         array [1] = 20;
    }

int main ()
     {
           int temp = 20; int array [4] = {1, 2, 3, 5};
           Function1(temp); Function2(array);
           cout << temp; << array [0] << array[1];
     }
```

Q2: Given the array below, write a C++ program to remove the second and second last elements of the array. [CLO-5] (3 Marks)

```
int array [6] = {10, 20, 30, 40, 50, 60};
```

Q3: Use-Case Scenario [CLO-1,7] (1 Mark)

A student wants to repeatedly insert elements into an array until the user decides to stop.

- Which loop (while or do-while) would you recommend and why?
- Implement the recommended loop to repeatedly insert elements into the array until the user enters -1.

Q4: What will be the output of the following code? [CLO-4,5] (1 Mark)

```
int array [5] = {10, 20, 30, 40, 50};

for (int i = 0; i <= 5; i++)
 {
    cout << array[i] <<endl;
 }
```

Q5: Write A C++ program to insert an element at the end of the following array if possible and only if the array already has a value greater than 50. If not, display "Insertion Not Allowed." [CLO-1,5] (1 Mark)

```
int array [6] = {10, 20, 30, 40, 50, 60};
```

Q6: Sending a photo attachment in an email – Which passing mechanism does this resemble in C++? [CLO-7] (1 Mark)

A) Pass by Value

B) Pass by Reference

C) Both Pass by Value and Pass by Reference

D) Neither Pass by Value nor Pass by Reference