

QUIZ 7 – ARRAYS

Name:

Duration: 60 Minutes

INSTRUCTIONS:

1. This is a **closed book** quiz.
 2. Answer Question 1 into the spaces provided in the question paper.
 3. Answer Question 2 using Dev C++. After you have finished, submit only the source code of your program to e-learning website.
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1. Write the output of the following program.

[5 Marks]

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

void print(const int[], int);
int sum(const int list[], int, int);

int main()
{
    int x = 2;
    int y[4]={3,4,1,7};
    int z[3][3] = { { 1,  2,  3},
                   { 5, 10, 15},
                   {10, 20, 30} };

    cout << y[x]+1    << endl;    // (a). Output: _____
    cout << y[x+1]    << endl;    // (b). Output: _____

    cout << y[x]+y[1] << endl;    // (c). Output: _____
    cout << y[ y[x] ] << endl;    // (d). Output: _____

    y[x]++;
    cout << y[x]    << endl;    // (e). Output: _____

    y[x++];
    cout << y[x]    << endl;    // (f). Output: _____

    for (int i=0; i<3; i++)
        cout << z[i][0] << "\t"; // (g). Output: _____
    cout << endl;

    print(y, 2);                // (h). Output: _____
    print(z[2], 3);             // (i). Output: _____

    cout << sum(z[2], 1,2)<< endl; // (j). Output: _____

    system("pause");
    return 0;
}

void print(const int list[], int size)
{
    for (int i=0; i<size; i++)
        cout << list[i] << "\t";
    cout << endl;
}

int sum(const int list[], int from, int to)
{
    int total = 0;
    for (int i=from; i<=to; i++)
        total += list[i];

    return total;
}
```

2. Write a C++ program that defines several functions as follow:

Function	Description
1	<p>To read in a list of student names and their scores, from the keyboard and store both list in arrays. The function should accept the number of student to read as one of its parameters. The user interaction should look like as follows:</p> <pre> Name: AAAAA Score: 99 Name: AAAAA Score: 99 ... Name: AAAAA Score: 99 </pre>
2	<p>To print out the list of student names and their scores in a table form. The output should look like as follows:</p> <pre> Student Score ----- AAAAA 99 AAAAA 99 ... AAAAA 99 </pre>
3	<p>To find the index of the highest score from the list of scores. For example, if the list of scores is {80,90,60}, the function will return 1, i.e., the index of score 90 (the highest one).</p>

Use the functions above into the main function to accomplish the following user interaction and output:

[10 Marks]

```

Enter the number of students => 5

Name : Ramli
Score: 90

Name : Ahmad
Score: 80

Name : Dollah
Score: 65

Name : Siti
Score: 95
} Accomplished with Function 1

Student Score
-----
Ramli 90
Ahmad 80
Dollah 65
Siti 95
} Accomplished with Function 2

Index of the highest score: 3
Highest score: 95      Name: Siti

```