



Daffodil International University

Faculty of Science & Information Technology
Department of Computer Science and Engineering
Quiz-03(72_K)

Course Code: CSE113, Course Title: Programming and Problem solving

Time: 30 minutes

Marks: 15

1. Solve the problem.

6

i) Find the error line and write the corrected version of the error line

```

1. #include <stdio.p>
2. int main()
3. {
4.     int original[5] = {10, 20, 30, 40, 50, 60};
5.     int reversed[5] = {0};
6.     int size = 5;
7.     for (int i = 0; i <= size; i++)
8.     {
9.         reversed[size - 1 - i] = original[i];
10.    }
11.    printf("Reversed array: ");
12.    for (int i = 0; i < Size; i++)
13.    {
14.        printf("%d ", reversed);
15.    }
16.    printf("\n");
17.    return 0;
18. }
```

Handwritten corrections:

- Line 1: $5-1-0=4$
- Line 12: $5-1-1=3$
- Line 13: $5-1-2=2$
- Line 16: $6-1$

ii) Find the output

```

1. #include <stdio.h>
2. int main()
3. {
4.     int grid[3][3] = {
5.         {1, 2, 3},
6.         {4, 5, 6},
7.         {7, 8, 9}
8.     };
9.     for (int i = 0; i < 3; i++)
10.    {
11.        grid[i][i] = grid[i][i] * 2;
12.    }
13.    for (int j = 0; j < 3; j++)
14.    {
15.        grid[2][j] = grid[2][j] - grid[0][j];
16.    }
17.    printf("Final Grid:\n");
18.    for (int r = 0; r < 3; r++)
19.    {
20.        for (int c = 0; c < 3; c++)
21.        {
22.            printf("%d ", grid[r][c]);
23.        }
24.        printf("\n");
25.    }
26.    return 0;
27. }
```

Handwritten calculations for grid transformation:

Initial grid:

1	2	3
4	5	6
7	8	9

Step 1: $1 \times 2 = 2$, $5 \times 2 = 10$, $9 \times 2 = 18$

Step 2: $2-2=0$, $10-1=9$, $18-3=15$

Final grid:

2	10	15
4	5	6
7	8	9

2. Once upon a time in the digital kingdom of Byteville, a massive delivery of numbered packages arrived at the grand warehouse. The Chief Inspector was given a crucial mission: find the lightest package (the minimum) to load onto the drone first, and the heaviest package (the maximum) to make sure it wouldn't break the delivery truck.

Instead of opening every package at once, the Inspector lined up all N packages in a row and scanned them one by one, keeping track of the smallest and largest numbers seen so far. By the time the Inspector reached the end of the line, the mystery was solved!

Input:

5

12 45 2 91 34

Output:

Minimum Element: 2

Maximum Element: 91

3. The Chief Inspector of Byteville faced a new challenge. The grand warehouse was cluttered with duplicate packages. To save space, the Inspector needed to find and print only the unique packages—the ones that appeared exactly once in the entire delivery line.

By keeping a tally of how many times each package number appeared, the Inspector quickly filtered out the duplicates.

Input:

7

4 5 4 8 5 1 2

Output:

Unique Elements: 8 1 2

$$e[0] = e[1]$$