Started on	Thursday, 20 February 2025, 12:53 PM
State	Finished
Completed on	Thursday, 20 February 2025, 12:54 PM
Time taken	1 min 3 secs
Marks	5.00/5.00
Grade	**100.00** out of 100.00

Question 1

Complete

Mark 1.00 out of 1.00

What happens if a recursive function does not have a base condition?

- A. The function will return 0.
- B. The function will throw an error immediately.
- C. The function will execute only once.
- D. The function will run indefinitely, causing a stack overflow.

Question 2

Complete

Mark 1.00 out of 1.00

Predict the Output of the following code:

```
#include <iostream>
using namespace std;
void func(int n) {
    cout << n << " ";
    func(n - 1);
}
int main() {
    func(5);
    return 0;
}
```

- A. 5 4 3 2 1 0 -1 -2 that is Infinite recursion, Stack Overflow.
- B. 5 4 3 2 1
- C. Compilation Error
- D. 5 4 3 2 1 0

Question 3

Complete

Mark 1.00 out of 1.00

Predict the output of the following code?

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

void fun(int n) {
    if (n == 0) return;
    cout << n << " ";
    fun(n / 2);
}

int main() {
    fun(10);
    return 0;
}
```

- A. None of the above
- B. 1 2 5 10
- C. 10 5 2 1 0
- D. 10 5 2 1

Question 4

Complete

Mark 1.00 out of 1.00

What is the Base Condition in Recursion?

- A. The initial value of the function.
- B. The part of the function where the recursion happens.
- C. The condition that stops the recursion.
- D. The part of the function that calls itself.

Question 5

Complete

Mark 1.00 out of 1.00

What is the main disadvantage of recursion?

- A. It is difficult to implement.
- B. It cannot be used in all programming languages.
- C. It can lead to stack overflow for large inputs.
- D. It is slower than iteration.