

Assignment 1.

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Q.1 Multiple choice questions.

- 1) C++ allows Bottom-up approach.
- 2) The data type specifies the size and type of information the variable will store.
- 3) Class in C++ is the building block that leads to object oriented programming.
- 4) Data is hidden by in C++ using Encapsulation.
- 5) The constructor is involved at the time of object creation.

Q.2

- 1) Write a program to find factorial number from user input.

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

```
int main() {
    int n, fact = 1;
    cout << "Enter a number to find factorial of: \n";
    cin >> n;
    for (int i = 1; i <= n; i++) {
        fact *= i;
    }
    cout << "Factorial is: " << fact << endl;
    return 0;
}
```


Output:

Enter a number to find factorial of:

5

Factorial is 120.

Q.2 Write a program to give choice to user from menu to perform action like (Hi/bye) using else-if ladder
→

```
#include <iostream>
```

```
using namespace std;
```

```
int main () {
```

```
    int choice;
```

```
    cout << "Enter a number for following choices \n
```

```
        1. Greet Message 1 \n
```

```
        2. Greet Message 2 \n";
```

```
    cin >> choice;
```

```
    if (choice == 1) {
```

```
        cout << "Hi !! " << endl;
```

```
    }
```

```
    else if (choice == 2) {
```

```
        cout << "Bye !! " << endl;
```

```
    } else {
```

```
        cout << "Enter a right choice number \n";
```

```
    }
```

```
    return 0;
```

```
}
```


Output :

Enter a number for following choices

1. Greet Message 1
2. Greet Message 2.

2

Bye !!

Q.3. Create a calculator using switch statement.

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int a, b, choice;
```

```
    cout << "Enter your two numbers" << endl;
```

```
    cin >> a >> b;
```

```
    cout << "Choose the following operation to perform\n
```

```
        1. Addition \n
```

```
        2. Subtraction \n
```

```
        3. Multiplication \n
```

```
        4. Division \n
```

```
        5. Modulus \n ";
```

```
    cin >> choice;
```

```
    switch (choice) {
```

```
        case 1:
```

```
            cout << a + b;
```

```
            break;
```

```
        case 2:
```

```

    cout << a-b;
    break;
case 3:
    cout << a * b;
    break;
case 4:
    cout << a/b;
    break;
case 5:
    cout << a % b;
    break;
default:
    cout << "Enter valid number " << endl;
}
return 0;
}

```

Output:

Enter your two numbers
20 40

Choose the following operation to perform :

1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Modulus.

Input : 3 800