

Homework Questions (5/02/2023)

Ques 1 Can we create more than one `main()` function in our program?

Yes we can have more than one `main()` function in our program. This can be achieved by creating a `main()` in some other namespace but like it won't be considered as the entry point of the program. The `main()` function inside the namespace won't be special.

Ques 2 Can we return some other value than 0 to the main () function?

Yes we can return 1 which indicates that there is some error while executing the program & it is not performing what it was intended to do. Also return -1 will mean the same.

Ques 3 Can we put input parameters in the main () function?

Yes we can give the input parameters in the main () function.

input parameters
`int main (int argc, char * argv []) {`

// Body of main

}

argc → argument count. This is an integer value that indicates how many arguments were entered on command line when the program was started.

argv → This is the second parameter which is an array of pointers to arrays of the character objects.

Ques 4 Can we write any expression inside the case of switch statement? If yes, then how?

No only constant values are allowed in the

case of switch statement.

Ques 5 Function to display area of circle

```
float areaCircle (float radius) {  
    return 3.14 * radius * radius ;  
}
```

Ques 6 Check number is even or odd ?

```
bool oddEven (int num) {  
    if (num % 2 == 0) → no. is even  
        return true ;  
    else → no. is odd  
        return false ;  
}
```

Ques 7 Function to find factorial of number.

```
int factorial (int num) {  
    int fact = 1 ;  
    for (int i = 1 ; i <= num ; i++) {  
        fact = fact * i ;  
    }  
    return fact ;  
}
```

Ques 8 Function to find a number is prime or not.

```
bool checkPrime (int num) {  
    int factor = 0 ;  
    if (num < 2) {  
        return false ;  
    }  
}
```

```
for (int i = 2; i < num; i++) {
    if (num % i == 0) {
        factor++;
        break;
    }
}
```

```
if (factor == 1)
    return false;
else
    return true;
}
```

Ques 9 Print prime numbers from 1 to n.
We will be reusing the code of previous question in this question

```
void printPrime (int n) {
    // Prime number starts from 2
    for (int i = 2; i <= n; i++) {
        // Function of Q8
        if (checkPrime(i)) {
            cout << i << " ";
        }
    }
}
```

Ques 10 Why can't we print factorial above 13?

This is because the value of factorial of numbers above 13 will exceed the range of numbers that int data type can accommodate. However we can use

long long but it also have some limit