

**EC2010-COMPUTER**  
**PROGRAMMING**  
**LAB-03**

**NAME :RENUJAN J.**

**REG\_NO. :2022/E/065**

**DATE :06 NOV 2023**

# QUESTION 01

## Source Code

```
..
1 // Question 01
2 // RENUJAN J.
3 // 2022/E/065
4 // EC2010
5 // Group: B
6 // Lab: 03
7 // Program Description: A user who wants to check his/her eligibility to get driver license.
8 // Certificate of Authenticity:
9 // I certify that the code in the method function main of this project
10 // is entirely my own work.
11 #include <iostream>
12
13 using namespace std;
14
15 int main()
16 {
17     string name;
18     int age, learner_no, cer_no;
19     cout << "Enter your first name and last name: ";
20     getline(cin, name);
21     cout << "Enter your Age: ";
22     cin >> age;
23     cout << "Enter your learnerNo(You don't have learnerNo type 0): ";
24     cin >> learner_no;
25     cout << "Enter your Aptitude Medical CertificateNo: ";
26     cin >> cer_no;
27
28     // Display all user inputs
29     cout << "\nName - "<<name<<"\n"<<"Age - "<<age;
30     cout << "\n"<<"learnerNo - "<<learner_no;
31     cout << "\n"<<"Medical CertificateNo - "<<cer_no<<endl;
32     cout <<endl;
33
34     if (age>17)
35     {
36         // Check the learner no
37         if (learner_no>0)
38         {
39             // Check the age for take practical exam
40             if (age>18)
41                 cout << "you are eligible as driver"<<endl;
42             else
43                 cout << "Your not eligibility to get driver license \nbecause Your a age is less than 18 so you can't take for practical exam."<<endl;
44         }
45         else
46             cout << "Your not eligibility to get driver license \nbecause You failed the written exam."<<endl;
47     }
48     else
49         cout << "Your not eligibility to get driver license \nbecause your age is less than 17."<<endl;
50     return 0;
51 }
52
```

```
Enter your first name and last name: Jeyakkumar Renujan
Enter your Age: 21
Enter your learnerNo(You don't have learnerNo type 0): 2
Enter your Aptitude Medical CertificateNo: 34
```

```
Name - Jeyakkumar Renujan
Age - 21
learnerNo - 2
Medical CertificateNo - 34

you are eligible as driver
```

```
Process returned 0 (0x0) execution time : 24.487 s
Press any key to continue.
```

```
Enter your first name and last name: Jeyakumar Renujan
Enter your Age: 18
Enter your learnerNo(You don't have learnerNo type 0): 1
Enter your Aptitude Medical CertificateNo: 12
```

```
Name - Jeyakumar Renujan
Age - 18
learnerNo - 1
Medical CertificateNo - 12
```

```
Your not eligibility to get driver license
because Your a age is less than 18 so you can't take for practical exam.
```

```
Process returned 0 (0x0) execution time : 17.977 s
Press any key to continue.
```

```
Enter your first name and last name: Jeyakumar Renujan
Enter your Age: 18
Enter your learnerNo(You don't have learnerNo type 0): 0
Enter your Aptitude Medical CertificateNo: 34
```

```
Name - Jeyakumar Renujan
Age - 18
learnerNo - 0
Medical CertificateNo - 34
```

Your not eligibility to get driver license  
because You failed the written exam.

```
Process returned 0 (0x0)   execution time : 17.950 s
Press any key to continue.
```

```
Enter your first name and last name: Jeyakumar Renujan
Enter your Age: 17
Enter your learnerNo(You don't have learnerNo type 0): 0
Enter your Aptitude Medical CertificateNo: 5
```

```
Name - Jeyakumar Renujan
Age - 17
learnerNo - 0
Medical CertificateNo - 5
```

Your not eligibility to get driver license  
because your age is less than 17.

```
Process returned 0 (0x0)   execution time : 20.408 s
Press any key to continue.
```

## QUESTION 02

### Source Code

```
1  // Question 02
2  // RENUJAN j.
3  // 2022/E/065
4  // EC2010
5  // Group: B
6  // Lab: 03
7  // Program Description: Using switch case to check the eligibility of the student to go next level.
8  // Certificate of Authenticity:
9  // I certify that the code in the method function main of this project
10 // is entirely my own work.
11 #include <iostream>
12
13 using namespace std;
14
15 int main()
16 {
17     string name, reg_no, subject, Print;
18     char grade;
19     cout << "Enter Your name: ";
20     getline(cin, name);
21     cout << "Enter your Reg_no (20xx/E/xxx): ";
22     cin >> reg_no;
23     cout << "Enter the Subject: ";
24     cin >> subject;
25     cout << "Enter the Grade(A/B/C/D): ";
26     cin >> grade;
27     cout << endl;
28
29     // Display the student details
30     cout << "Name - " << name << "\nReg_no - " << reg_no << "\nSubject - " << subject;
31     cout << "\nGrade - " << grade << endl;
32
33     switch (grade)
34     {
35         case 'A': cout << "\nExcellent, your grade is A."; break;
36         case 'B': cout << "\nWell done, your grade is B."; break;
37         case 'C': cout << "\nYou passed, your grade is C."; break;
38         case 'D': cout << "\nBetter try again, your grade is D."; break;
39         default: cout << "\nInvalid grade.";
40     }
41     return 0;
42 }
43
```

## Output

```
Enter Your name: Jeyakumar Renujan
Enter your Reg_no (20xx/E/xxx): 2022/E/065
Enter the Subject: Computing
Enter the Grade(A/B/C/D): A

Name - Jeyakumar Renujan
Reg_no - 2022/E/065
Subject - Computing
Grade - A

Excellent, your grade is A.

Process returned 0 (0x0)   execution time : 21.241 s
Press any key to continue.
```

```
Enter Your name: Jeyakumar Renujan
Enter your Reg_no (20xx/E/xxx): 2022/E/065
Enter the Subject: Metrology
Enter the Grade(A/B/C/D): C

Name - Jeyakumar Renujan
Reg_no - 2022/E/065
Subject - Metrology
Grade - C

You passed, your grade is C.

Process returned 0 (0x0)   execution time : 38.718 s
Press any key to continue.
```

```
Enter Your name: Jeyakumar Renujan
Enter your Reg_no (20xx/E/xxx): 2022/E/065
Enter the Subject: Maths
Enter the Grade(A/B/C/D): a

Name - Jeyakumar Renujan
Reg_no - 2022/E/065
Subject - Maths
Grade - a

Invalid grade.

Process returned 0 (0x0)   execution time : 26.349 s
Press any key to continue.
```

## QUESTION 03

### Source Code

#### Part a – Using for loop

```
1 // Question 03 part a
2 // RENUJAN j.
3 // 2022/E/065
4 // EC2010
5 // Group: B
6 // Lab: 03
7 // Program Description: find the summation of positive numbers of them
8 // Certificate of Authenticity:
9 // I certify that the code in the method function main of this project
10 // is entirely my own work.
11 #include <iostream>
12
13 using namespace std;
14
15 int main()
16 {
17     int num, sum = 0;
18     cout << "Enter 10 numbers: ";
19     for (int i=1; i<=10; i++)
20     {
21         cin >> num;
22         if (num>0)
23             sum = sum+num;
24     }
25     cout << "Summation: "<< sum << endl;
26     return 0;
27 }
28
```

#### Part b – Using While loop

```
1 // Question 03 part b
2 // RENUJAN j.
3 // 2022/E/065
4 // EC2010
5 // Group: B
6 // Lab: 03
7 // Program Description: find the summation of positive numbers of them using
8 // Certificate of Authenticity:
9 // I certify that the code in the method function main of this project
10 // is entirely my own work.
11 #include <iostream>
12
13 using namespace std;
14
15 int main()
16 {
17     int i = 1, num, sum = 0;
18     cout << "Enter 10 numbers: ";
19
20     while(i<=10)
21     {
22         cin >> num;
23         if (num>0)
24             sum = sum+num;
25         i++;
26     }
27     cout << "Summation: "<< sum << endl;
28     return 0;
29 }
30
```

#### Part c – Using do while loop

```
1 // Question 03 part c
2 // RENUJAN j.
3 // 2022/E/065
4 // EC2010
5 // Group: B
6 // Lab: 03
7 // Program Description: find the summation of positive numbers of them using
8 // Certificate of Authenticity:
9 // I certify that the code in the method function main of this project
10 // is entirely my own work.
11 #include <iostream>
12
13 using namespace std;
14
15 int main()
16 {
17     int i = 1, num, sum = 0;
18     cout << "Enter 10 numbers: ";
19     do
20     {
21         cin >> num;
22         i++;
23         if (num>0)
24             sum = sum+num;
25     }while(i<=10);
26     cout << "Summation: "<< sum << endl;
27     return 0;
28 }
29
```

## Output

```
Enter 10 numbers: 2
```

```
5
```

```
3
```

```
8
```

```
7
```

```
4
```

```
3
```

```
8
```

```
9
```

```
4
```

```
Summation: 53
```

```
Process returned 0 (0x0)   execution time : 24.946 s
```

```
Press any key to continue.
```

```
Enter 10 numbers: 2
```

```
5
```

```
-3
```

```
-8
```

```
7
```

```
4
```

```
3
```

```
8
```

```
9
```

```
4
```

```
Summation: 42
```

```
Process returned 0 (0x0)   execution time : 27.246 s
```

```
Press any key to continue.
```