

C++ MODEL EXAM:

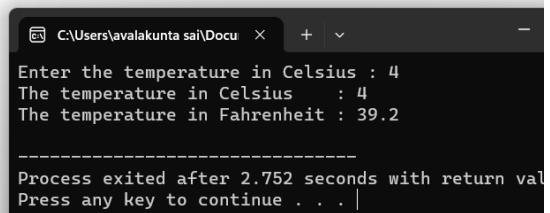
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CSE

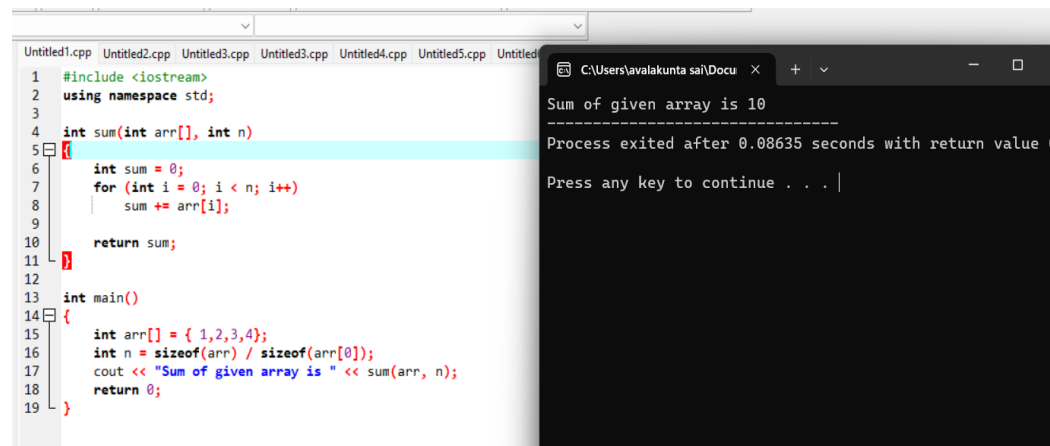
1.sum of elements in array22

```
1 #include<iostream>
2 using namespace std;
3
4 int main()
5 {
6     float fahrenheit, celsius;
7
8     cout << "Enter the temperature in Celsius : ";
9     cin >> celsius;
10    fahrenheit = (celsius * 9.0) / 5.0 + 32;
11    cout << "The temperature in Celsius : " << celsius << endl;
12    cout << "The temperature in Fahrenheit : " << fahrenheit << endl;
13    return 0;
14 }
```

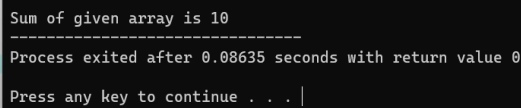


```
C:\Users\avalakunta sai\Docu x + v -
Enter the temperature in Celsius : 4
The temperature in Celsius : 4
The temperature in Fahrenheit : 39.2
-----
Process exited after 2.752 seconds with return val
Press any key to continue . . . |
```

2.celsius and fahrenheit



```
1 #include <iostream>
2 using namespace std;
3
4 int sum(int arr[], int n)
5 {
6     int sum = 0;
7     for (int i = 0; i < n; i++)
8     {
9         sum += arr[i];
10    }
11    return sum;
12
13 int main()
14 {
15     int arr[] = { 1,2,3,4};
16     int n = sizeof(arr) / sizeof(arr[0]);
17     cout << "Sum of given array is " << sum(arr, n);
18     return 0;
19 }
```



```
C:\Users\avalakunta sai\Docu x + v -
Sum of given array is 10
-----
Process exited after 0.08635 seconds with return value 0
Press any key to continue . . . |
```

3.pattern

```

titled1.cpp  Untitled2.cpp  Untitled3.cpp  Untitled3.cpp  Untitled4.cpp
#include <iostream>
using namespace std;

int main() {

    int rows;

    cout << "Enter number of rows: ";
    cin >> rows;

    for(int i = 1; i <= rows; ++i) {
        for(int j = 1; j <= i; ++j) {
            cout << j << " ";
        }
        cout << "\n";
    }
    return 0;
}

```

Result matrix is

```

2 2 2 2
4 4 4 4
6 6 6 6
8 8 8 8
-----
Process exited after 0.08142 s
Press any key to continue . .

```

4.add 2 matrix

```

Untitled1.cpp  Untitled2.cpp  Untitled3.cpp  Untitled3.cpp  Untitled4.cpp
1  #include <iostream>
2  using namespace std;
3  #define N 4
4  void add(int A[][N], int B[][N], int C[][N])
5  {
6      int i, j;
7      for (i = 0; i < N; i++)
8          for (j = 0; j < N; j++)
9              C[i][j] = A[i][j] + B[i][j];
10 }
11 int main()
12 {
13     int A[N][N] = { { 1, 1, 1, 1 },
14                     { 2, 2, 2, 2 },
15                     { 3, 3, 3, 3 },
16                     { 4, 4, 4, 4 } };
17
18     int B[N][N] = { { 1, 1, 1, 1 },
19                     { 2, 2, 2, 2 },
20                     { 3, 3, 3, 3 },
21                     { 4, 4, 4, 4 } };
22
23     int C[N][N];
24     int i, j;
25     add(A, B, C);
26
27     cout << "Result matrix is " << endl;

```

C:\Users\avalakunta sai\Docu × +

Result matrix is

```

2 2 2 2
4 4 4 4
6 6 6 6
8 8 8 8
-----
Process exited after 0.09009 s
Press any key to continue . .

```

5.exception handling.

```
led1.cpp  Untitled2.cpp  Untitled3.cpp  Untitled3.cpp  Untitled4.cpp  Untitled5.cpp  Untitled6.cpp

int main() {

    double numerator, denominator, divide;

    cout << "Enter numerator: ";
    cin >> numerator;

    cout << "Enter denominator: ";
    cin >> denominator;

    try {

        if (denominator == 0)
            throw 0;

        divide = numerator / denominator;
        cout << numerator << " / " << denominator << " = " << divide;

    }

    catch (int num_exception) {
        cout << "Error: Cannot divide by " << num_exception << endl;
    }

    return 0;
}
```

```
Enter numerator: 4
Enter denominator: 56
4 / 56 = 0.0714286

-----
Process exited after 3.3
rn value 0
Press any key to continue . . .
```

6.constructor and destructor.

```
Untitled1.cpp  Untitled2.cpp  Untitled3.cpp  Untitled3.cpp  Untitled4.cpp  Untitled5.cpp  Untitled6.cpp  Untitled7.cpp

1  #include<iostream>
2  #include<stdio.h>
3  #include<string.h>
4
5  using namespace std;
6
7  class T4Tutorials
8  {
9  {
10     int acno;
11     char AccountHolderName[100], Account_Type[100];
12     float bal;
13 public:
14     T4Tutorials(int acc_no, char *name, char *acc_type, float Balance)
15     {
16         acno=acc_no;
17         strcpy(AccountHolderName, name);
18         strcpy(Account_Type, acc_type);
19         bal=Balance;
20     }
21     void deposit();
22     void withdraw();
23     void Show();
24 };
25 void T4Tutorials::deposit()
26 {
27     float DepositAmount;
```

```
Enter Details:
*****
Account No.
123444455
Name :
sai
Account Type :
savings
Balance :
10000
Enter Deposit Amount =
10000000
Enter Withdraw Amount =
2334
*****
Account No. : 123444455 Name : sai Account T
ype : savings Balance : 1.00077e+007
-----
Process exited after 24.5 seconds with retur
n value 0
Press any key to continue . . . |
```

7.squareroot.

```
1 #include<iostream>
2 #include<cmath>
3 using namespace std;
4 int main()
5 {
6     cout<<"square root of 25=";
7     cout<<sqrt(25);
8     return 0;
9 }
```

```
C:\Users\avalakunta sai\Docu... x + v
square root of 25=5
-----
Process exited after 0.0829 seconds with
Press any key to continue . . . |
```

8.create a base class for employee.

```
1 #include <iostream>
2 #include <string>
3 using namespace std;
4 class Employee {
5 protected:
6     string Emp_name;
7     int Emp_id;
8     string Address;
9     string Mail_id;
10    string Mobile_no;
11 public:
12    Employee(const string& name, int id, const string& address, const string& mail, const string& mobile_no)
13        : Emp_name(name), Emp_id(id), Address(address), Mail_id(mail), Mobile_no(mobile_no) {}
14
15    virtual void generatePaySlip() = 0;
16 };
17 class Programmer : public Employee {
18 protected:
19     double BP;
20 public:
21    Programmer(const string& name, int id, const string& address, const string& mail, const string& mobile_no, double BP)
22        : Employee(name, id, address, mail, mobile_no), BP(BP) {}
23
24    void generatePaySlip() override {
25        double DA = 0.97 * BP;
26        double HRA = 0.10 * BP;
27        double PF = 0.12 * BP;
28        double staffClubFund = 0.001 * BP;
29    }
```

```
C:\Users\avalakunta sa... x + v
Pay Slip for Programmer
Employee Name: John Doe
Employee ID: 101
Address: 123 Street Ave
Mail ID: john@example.com
Mobile Number: 1234567890
Basic Pay: 50000
Dearness Allowance: 48500
House Rent Allowance: 5000
Provident Fund: 6000
Staff Club Fund: 50
Gross Salary: 103500
Net Salary: 97450
-----
Process exited after 0.08865 second
turn value 0
Press any key to continue . . . |
```