

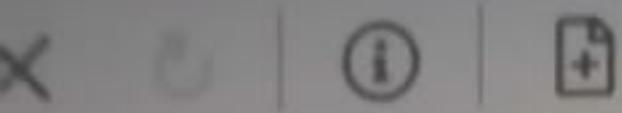
A PCR test should be taken by people who have a temperature more than 50 values or conditional operators that can be filled to complete the following st

```
float temp;  
int runningNose = 1;
```

```
If( ____ >= 50 __ runningNose ____ 1)  
{  
    Printf("Take the PCR test");  
}
```

Select one:

- 1. temp, &&, =
- 2. temp, &&, ==
- 3. temp, !=, !=
- 4. temp, ||, =
- 5. temp, ||, ==



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Select the correct initialization of n to display the output as 2 15 41 80 132.

```
int main()
{
    int n = ?;
    for(int i = 1; i <= n; i++){
        printf("%d ",13* i*(i - 1)/2 + 2);
    }
    return 0;
}
```

Select one:

- 1. int n = 0;
- 2. int n = 13;
- 3. int n = 2;
- 4. int n = 5;
- 5. int n = 1;



What is the output of the following C program?

```
int main()
{
    int points[5][5];
    for(int i=0; i<5; i++){
        for(int j=0; j<5; j++){
            points[i][j] = i + j;
        }
    }
    for(int i=0; i<5; i++){
        for(int j=0; j<5; j++){
            if(i == j)
                printf("%d ", points[i][j]);
        }
    }
    return 0;
}
```

Select one:

- a. 0 2 4 6 8
- b. 4 4 4 4 4
- c. 4
- d. 0
- e.

01234
12345
23456
34567
45678

le

x

New Tab

x

x



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5

answered

out of

question

A bank allows account holders to withdraw and to deposit money which is the most suitable definition for the function "withdraw"

Select one:

- 1. withdraw(accNo, amount);
- 2. double withdraw(int accNo, double amount, double balance);
- 3. double withdraw(accNo, amount);
- 4. double withdraw(accNo, amount, balance);
- 5. double withdraw(int accNo, double amount);



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What does the following statement mean?

```
int num[2][2];
```

Select one or more:

- 1. Integer array with values 2 and 2
- 2. Integer array declaration with 2 rows
- 3. Integer array declaration with 2 columns
- 4. Integer array declaration with 4 elements
- 5. Integer array declaration with 2 elements

Question 11

Not yet answered

Marked out of
5.00

Flag question

A function called **modifyArray()** accepts a float array and number of elements in the array and increase the value of array elements by 10%. Write a suitable function prototype for the **modifyArray()**.

Also complete the following main function to invoke the function **modifyArray** with suitable arguments.

```
# include <stdio.h>

int main(void)
{
    float x[5] = { 2, 8, 3, 9, 10};

    .....
    .....

    return 0;
}
```



Function prototype - void modifyArray(float x[], int size)

Function invoke -

```
{
int i;
for(i=0 ; i<size ; i++)
{
    x[i] = x[i] * (10.0 / 100);
}
```

≡ Quiz navigation

Finish attempt ...

Time left 1:36:49



MCQ QUESTIONS (2 MARKS EACH)

1	2	3	4	5	6
---	---	---	---	---	---

9	10
---	----

ESSAY QUESTIONS (5 MARKS EACH)

11	12	13	14	15	16
----	----	----	----	----	----

19	20	21	22	23
----	----	----	----	----

ESSAY QUESTIONS (7.5 MARKS EACH)

24	25
----	----

FEEDBACK

26

'Quick cleaners' offers dry cleaning service for their customers based on three service types. The service types and the price per 01 kg of items are mentioned below.

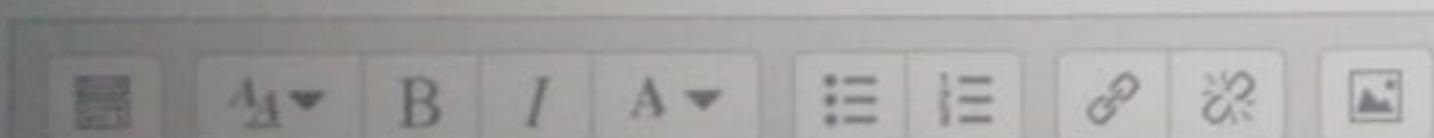
Type	Service Type	Payment for 01kg (Rs.)
1	Urgent service	750
2	One day service	500
3	Normal service	350

If the customer needs delivery service, an additional payment of one thousand will be charged.

Function **calPayment()** calculates and return the payment for the laundry service when the service type, the weight of the items and necessity of delivery are passed as parameters.

If the customer needs delivery service, value "Y" will be passed to the function and otherwise, value "N" will be passed.

Write a suitable function prototype for the function **calPayment()**.



```
float calPayment( int typ , float weight , char necessity);
```



Question 14

Not yet answered

Marked out of

0.00

Flag question

Write a C program to read the details of 5 online orders (Order ID, Item No, Quantity) from the keyboard and store them in a text file called "orders.dat" in the below format.

Order ID	Item No	Quantity
----------	---------	----------

-----	-----	-----
-----	-----	-----



```
#include<stdio.h>
int main(void)
{
FILE *ord;
ord = fopen("orders.dat", "w");
int id , itmNo , qty;
int i;

for(i = 0 ; i < 5 ; i++)
{
printf("Order ID : ");
scanf("%d" , &id);
```

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9

ESSA

11

19

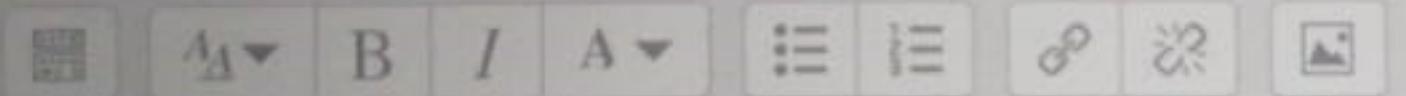
ESSA

24

FEED

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Order ID	Item No	Quantity
-----	-----	-----
-----	-----	-----

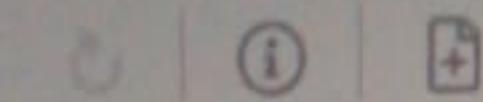


```
scanf("%d", &itmNo);
printf("Enter Quantity : ");
scanf("%d", &qty);

fprintf(ord, "%d \t %d \t %d \n ", id, itmNo, qty);

}

return 0;
}
```

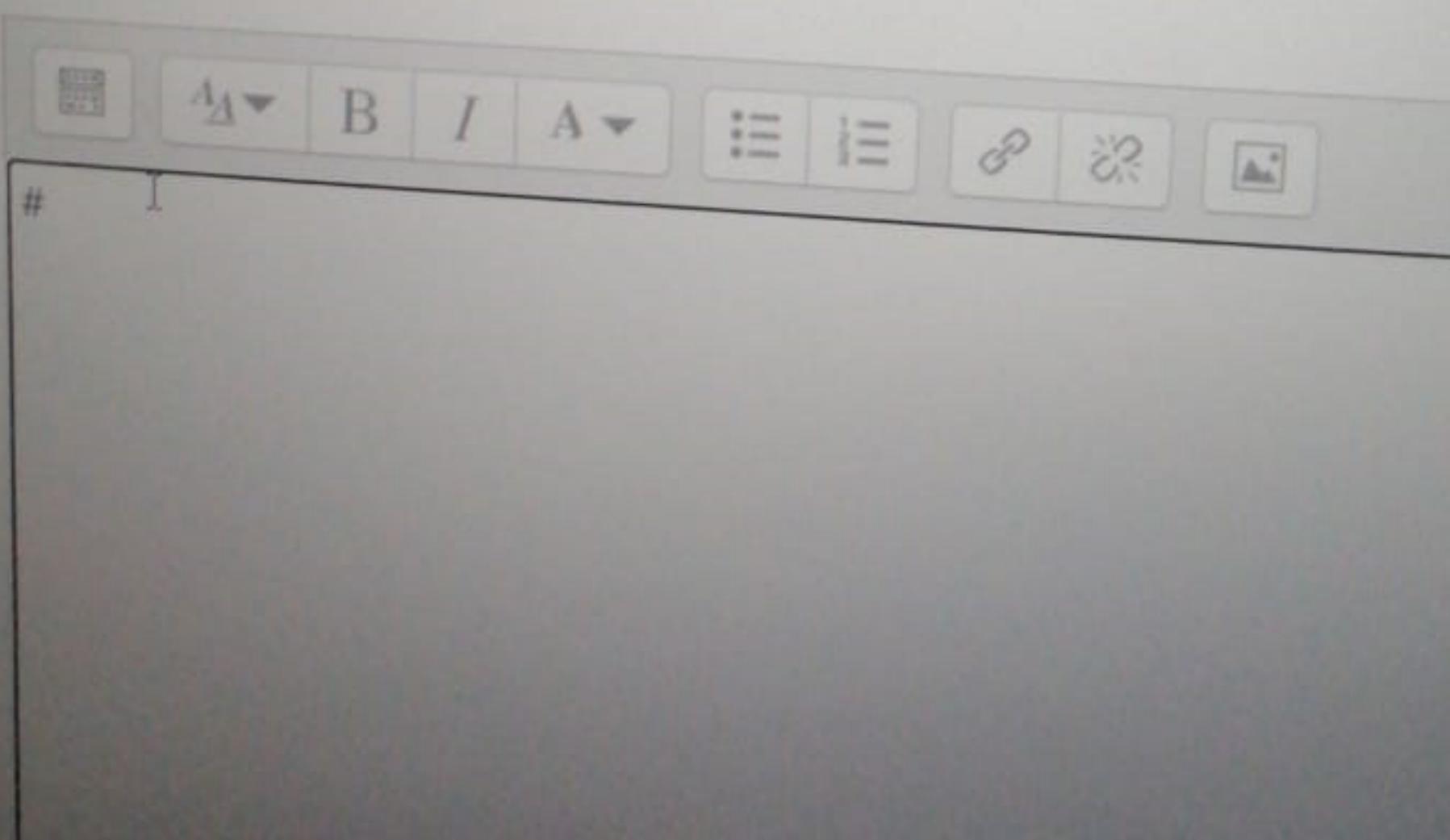


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Write a C program to print the following star pattern.

```
*****
*****
*****
*****
*****
*****
*****
*****
*****
*
**
```



A screenshot of a code editor window. The title bar at the top says "NetExam". Below the title bar is a toolbar with various icons for file operations, search, and selection. The main area of the editor contains the following C program code:

```
#include <stdio.h>

int main()
{
    // Your code here
}
```

```
    discountRate = 10.0;  
else  
    discountRate = 0;  
  
return discountRate;  
}  
  
void displayDetails(int itemNo, float price, float amountToBePaid)  
{  
    printf("Discount Details\n");  
    printf("Item No\tPrice\tAmount\n");  
    printf("%d\t%.2f\t%.2f\n", itemNo, price, amountToBePaid);  
}
```

```
float discount , amount;  
discount = getDiscountRate(itemNo);  
amount = price * (1 - discount / 100 );  
displayDetails(itemNo , price , amount );
```

Question 19

Not yet answered
Marked out of
6
Flag question

Write a C program to input a word from the keyboard, store it in a character array called `newArr` and display the number of uppercase letters stored in the array.

Hint : ASCII value of a is 97 and z is 122.

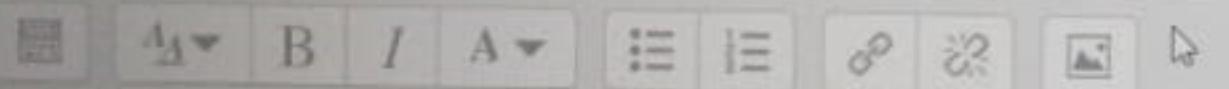
ASCII value of A is 65 and Z is 90.

Ex.

M	a	R	k	e	t
---	---	---	---	---	---

Input word : MaRket

No. of uppercase letters : 2



```
#include<stdio.h>
#include<string.h>
int main(void)
{
    char newArr[100];
    int size , count=0 , i;

    printf("Enter Word : ");
    scanf("%s" , newArr);

    size = strlen(newArr);
    for(i = 0 ; i < size ; i++)
        if(newArr[i] >= 'A' && newArr[i] <= 'Z')
```

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Finish attempt

Time left 0:47:1

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MCQ QUESTIO

1 2 3

9 10

ESSAY QUESTI

11 12 13

19 20 21

ESSAY QUESTI

24 25

FEEDBACK

26

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Flag question

Hint : ASCII value of a is 97 and z is 122.

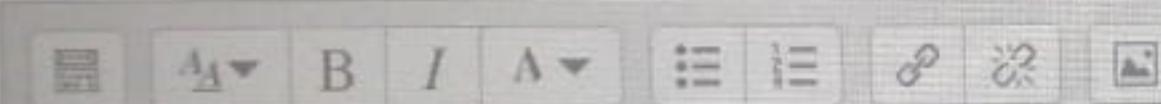
ASCII value of A is 65 and Z is 90.

Ex.

M	a	R	k	e	t
---	---	---	---	---	---

Input word : MaRket

No. of uppercase letters : 2



```
scanf("%s", newArr);

size = strlen(newArr);
for(i = 0 ; i < size ; i++)
{
    if(newArr[i] >= 65 || newArr <= 90)
        count = count + 1;
}

printf("No of Uppercase Letters : %d ", count);
return 0;
}
```

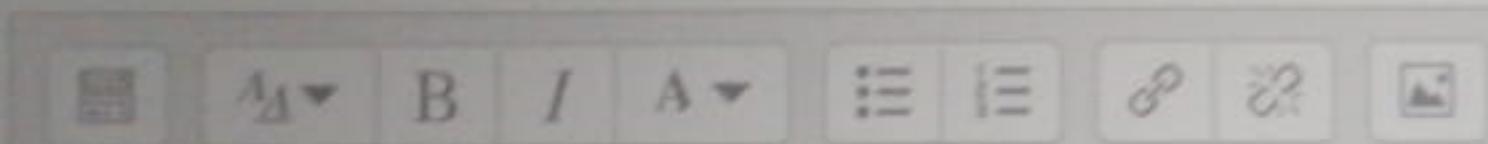
```
    return 0;  
}
```

A screenshot of a Java code editor window. The menu bar at the top includes 'File', 'Edit', 'Tools', 'Help', and a 'Recent' section. Below the menu is a toolbar with icons for new file, open file, save file, cut, copy, paste, find, replace, and others. The main code area contains the following Java code:

```
float amt;  
  
switch(type)  
{  
    case 'C':  
        amt= 40 * distance;  
        if(distance >100)  
            discount = amt * (5.0 / 100);  
        break;  
  
    case 'V':  
        amt= 50 * distance;
```

```
return 0;
```

```
}
```



```
amt= 50 * distance;  
if(distance >100)  
discount = amt * (5.0 / 100);  
break;  
  
case 'B':  
amt= 75 * distance;  
break;  
  
}  
  
printf("discount : %.2f ", discount);
```

```
I
```

Question 20

Not yet answered

Marked out of
5.00

Flag question

A cab service has three types of vehicles for rental service (C- Car, V- Van, B- Bus). Rs.40.00 will be charged per kilometer from a car, Rs.50.00 from a van and Rs. 75.00 from a bus. 5.0% discount is given if the total distance is above 100 km. Discount will be given only to cars and vans. Buses will not get the discount.

Following C program is written to enter the type of the vehicle and the total distance from the keyboard. Complete the program to calculate and display the discount received.

```
#include<stdio.h>
int main(void)
{
    char type;
    int distance;
    float discount = 0;

    printf("Enter vehicle type:");
    scanf("%c", &type);

    printf("Enter total distance:");
    scanf("%d", &distance);
```



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Finish attempt ...

Time left 0:40:26



MCQ QUESTIO

1	2	3

9	10

ESSAY QUESTIO

11	12	13

19	20	21

ESSAY QUESTIO

24	25

FEEDBACK

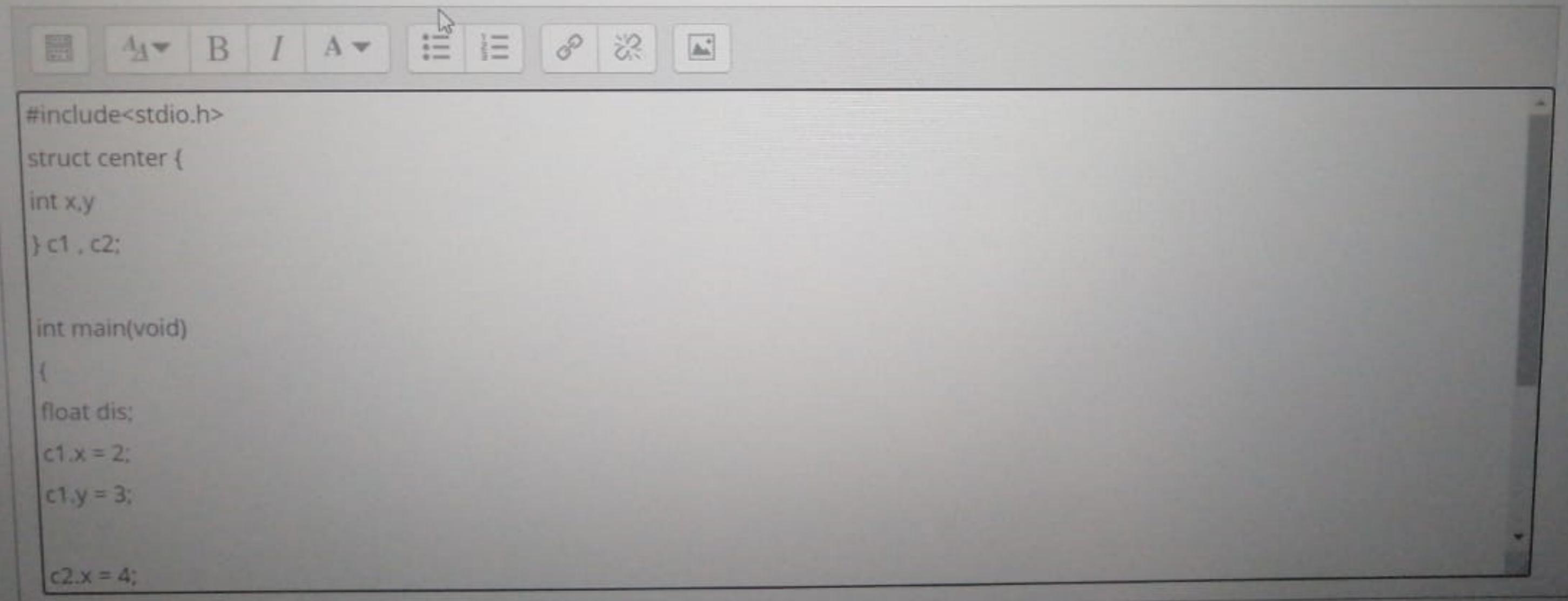
26

Write a C program to do the following.

1. Define a structure called **center** which can be used to store x and y coordinates of center of a circle.
2. Declare 2 center points **C1** and **C2**.
3. Initialize **C1** and **C2** with suitable values.
4. Calculate and display the distance between the centers.

e.g if two center points are **C1** (x_1, y_1) and **C2** (x_2, y_2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



The screenshot shows a code editor window with a toolbar at the top containing various icons for file operations, text styling, and code navigation. The main area displays the following C code:

```
#include<stdio.h>

struct center {
    int x,y
} c1 , c2;

int main(void)
{
    float dis;
    c1.x = 2;
    c1.y = 3;
    c2.x = 4;
```

1. Define a structure called **center** which can be used to store x and y coordinates of center of a circle.
2. Declare 2 center points **C1** and **C2**.
3. Initialize **C1** and **C2** with suitable values.
4. Calculate and display the distance between the centers.
e.g if two center points are **C1** (**x₁**, **y₁**) and **C2** (**x₂**, **y₂**)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

The screenshot shows a C code editor window with the following interface elements:

- Toolbar: Includes icons for file operations (New, Open, Save), copy/paste, and search.
- Code Editor Area:

```
float dis;
c1.x = 2;
c1.y = 3;

c2.x = 4;
c2.y = 5;

dis = sqrt( sqrt( c1.x - c2.x ) + sqrt(c1y - c2y) );

printf("discount %.2f" , dis);
}
```
- Vertical Scroll Bar: On the right side of the code editor area.

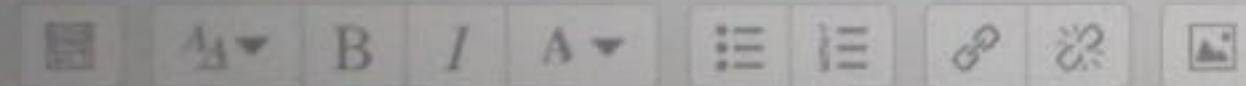
To test the given function, write two suitable assert statements.

This function will return displacement(s) of an object when its initial velocity (u), acceleration (a), and time (t) traveled are passed as parameters.

```
double calculate(double u, double a, double t)
{
    double s = u * t + (a * t * t) / 2;
    return s;
}
```

Sample data

Displacement (s) / m	Initial velocity (u) / ms ⁻¹	Acceleration (a) / ms ⁻²	Time (t) / s
750.0	25.0	10.0	10.0
2000.0	50.0	5.0	20.0
812.5	100.0	25.0	5.0
1365.0	125.0	20.0	7.0



```
assert(calculate(25.0, 10.0, 10.0) == 750.0);
assert(calculate(100.0, 25.0, 5.0) == 812.5);
```



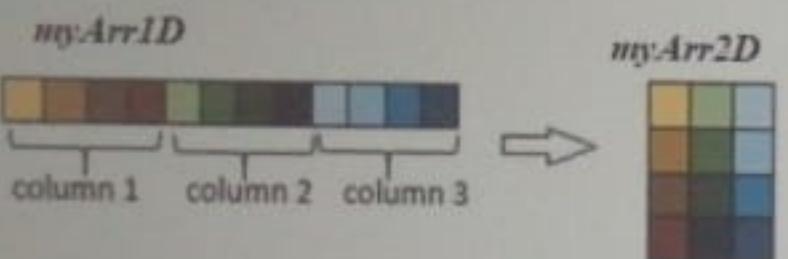
Question 24

Not yet answered

Marked out of
7.50

Flag question

Write a C program to read numbers from the keyboard and store in a 1D integer array of size 12 called *myArr1D*. Create another 2D integer array of size 4 x 3 called *myArr2D* and populate it with the values stored in *myArr1D* as shown below. Part of the program is written below. Complete the program.



```
#include<stdio.h>
int main(void)
{
    int myArr1D[12]; //create 1D array
    int myArr2D[4][3]; //create 2D array
    int i;
    for(i = 0; i < 12; i++)
    {
        scanf("%d", &myArr1D[i]); // store values in 1D array
    }
    // read 1D array and store the values in 2D array
    ....
```

Quiz navigation

Finish attempt ...

Time left 0:19:31

1

MCQ QUESTIONS (2 MARKS EACH)

1	2	3	4	5	6	7
8	9	10				

ESSAY QUESTIONS (5 MARKS EACH)

11	12	13	14	15	16	17
18	19	20	21	22	23	

ESSAY QUESTIONS(7.5 MARKS EACH)

24	25	
26		

FEEDBACK

26

```
return 0;
```

```
}
```

A screenshot of a Microsoft Word document window. The title bar says "Untitled - Word". The ribbon tabs at the top are Home, Insert, Page Layout, and View. Below the ribbon is a toolbar with icons for bold, italic, underline, font size, font color, and other document settings. The main content area contains the following C++ code:

```
int j;

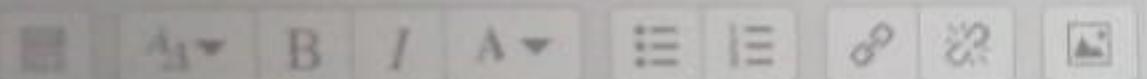
for(i = 0 ; i<4 ; i++)
{
    for(j = 0 ; j <3 ; j++)
    {
        if(i == 0)
            myArr1D[i+1*j] = myArr2D[j][i];
        else
            myArr1D[i*j] = myArr2D[j][i];
    }
}
```

```
34567 D 3000.00
99887 W 1000.00
45673 D 8000.00
89734 W 6000.00
22233 W 5500.00
```

This is the content of a data file that stores transaction details of a bank.

The account number, transaction type (Withdrawal - W / Deposit - D) and the transaction amount are stored in a data file called "bank.dat".

Write a C program to read the file, find and display the total number of deposits and total number of withdrawals.



```
#include<stdio.h>
int main(void)
{
FILE *bank;
bank = fopen("bank.dat" , "r");

int acNum;
char typ;
float Wamt=0 , Damt=0 , tot;

fscanf(bank , "%d %c %f" , acNum , typ , tot);
while(!feof(bank))
```

☰ Quiz navigation

Finish attempt ...

Time left: 0:06:55

1

MCQ QUESTIONS (2 MARKS)

1 2 3 4 5

9 10

ESSAY QUESTIONS (5 MARKS)

11 12 13 14 15

19 20 21 22 23

ESSAY QUESTIONS(7.5 MARKS)

24 25

FEEDBACK

26

This is the content of a data file that stores transaction details of a bank.

The account number, transaction type (Withdrawal - W / Deposit - D) and the transaction amount are stored in a data file called "bank.dat".

Write a C program to read the file, find and display the total number of deposits and total number of withdrawals.

```
float Wamt=0, Damt=0, tot;  
  
fscanf(bank, "%d %c %f", acNum, typ, tot);  
while(!feof(bank))  
{  
    if(typ == 'W')  
        Wamt = Wamt + tot;  
    else if(typ == 'D')  
        Damt = Damt + tot;  
  
    fscanf(bank, "%d %c %f", acNum, typ, tot);
```

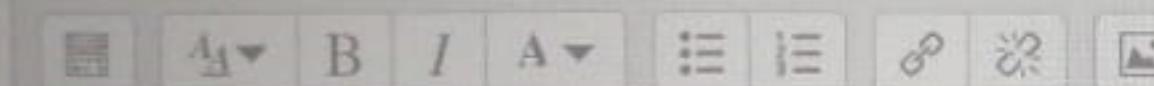
89734 W 6000.00

22233 W 5500.00

This is the content of a data file that stores transaction details of a bank.

The account number, transaction type (Withdrawal - W / Deposit - D) and the transaction amount are stored in a data file called "**bank.dat**".

Write a C program to read the file, find and display **the total number of deposits and total number of withdrawals**.



```
fscanf(bank , "%d %c %f" , acNum , typ , tot);  
}  
  
printf("Total Withdrawals is : %.2f\n" , Wamt);  
printf("Total Diposit Amount is : %.2f\n" , Damt);  
  
return0;  
}
```

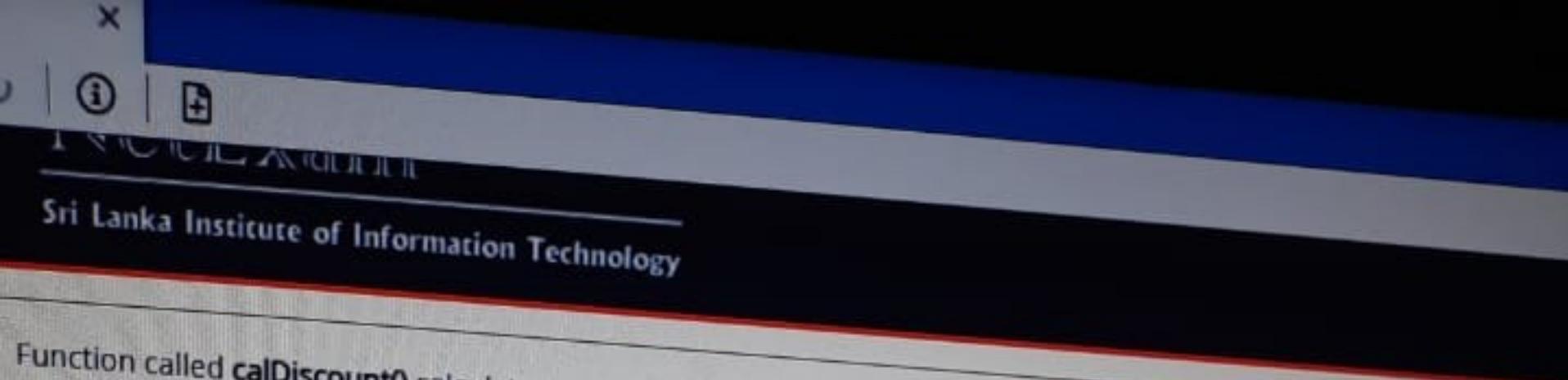
Consider the following code segment and select correct statement/s.

```
int main(void)
{
    int a = 5;
    a = calSum();
    printf("%d", a);
    return 0;
}

int calSum()
{
    int a = 6, b = 3;
    return a + b;
}
```

Select one or more:

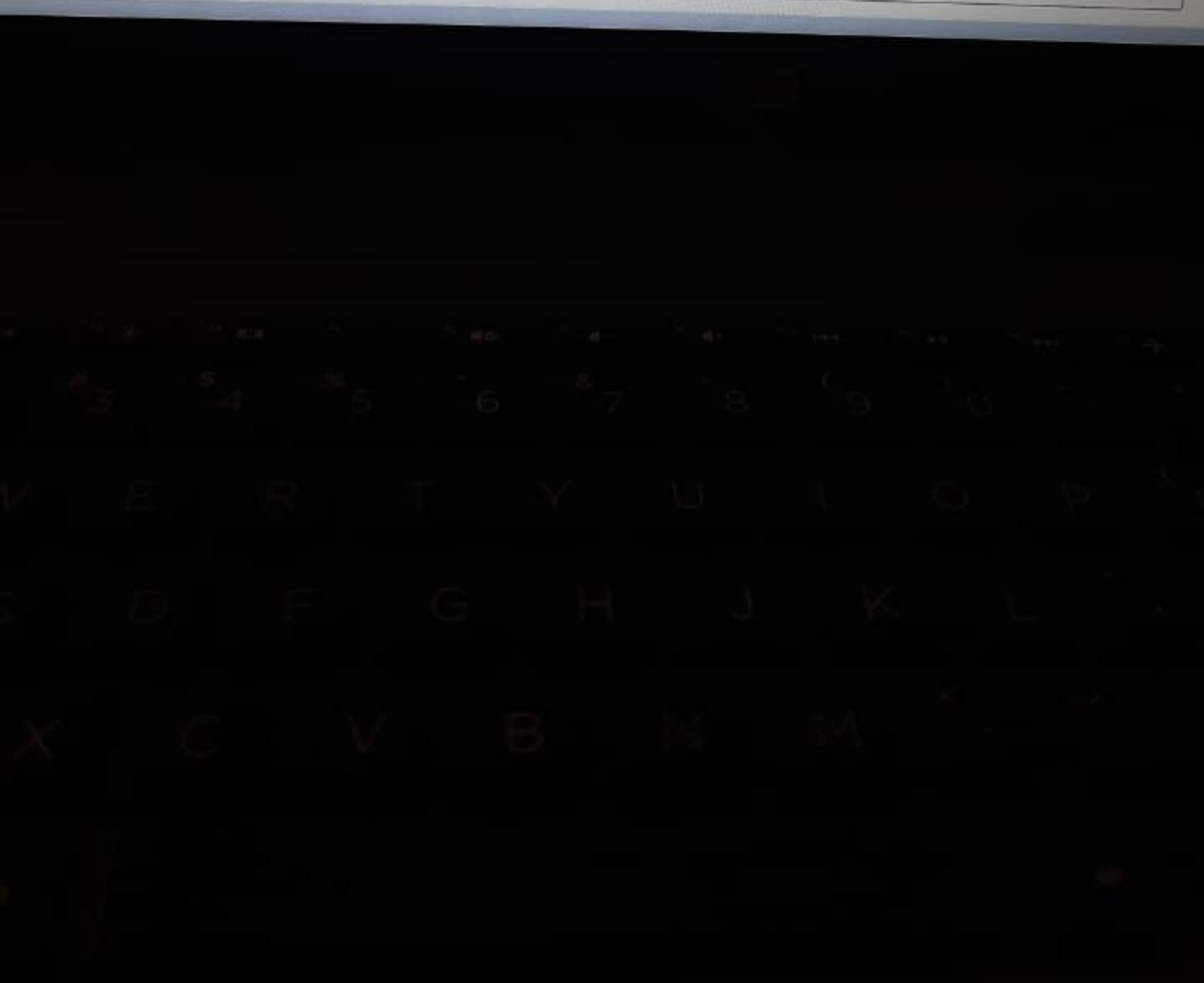
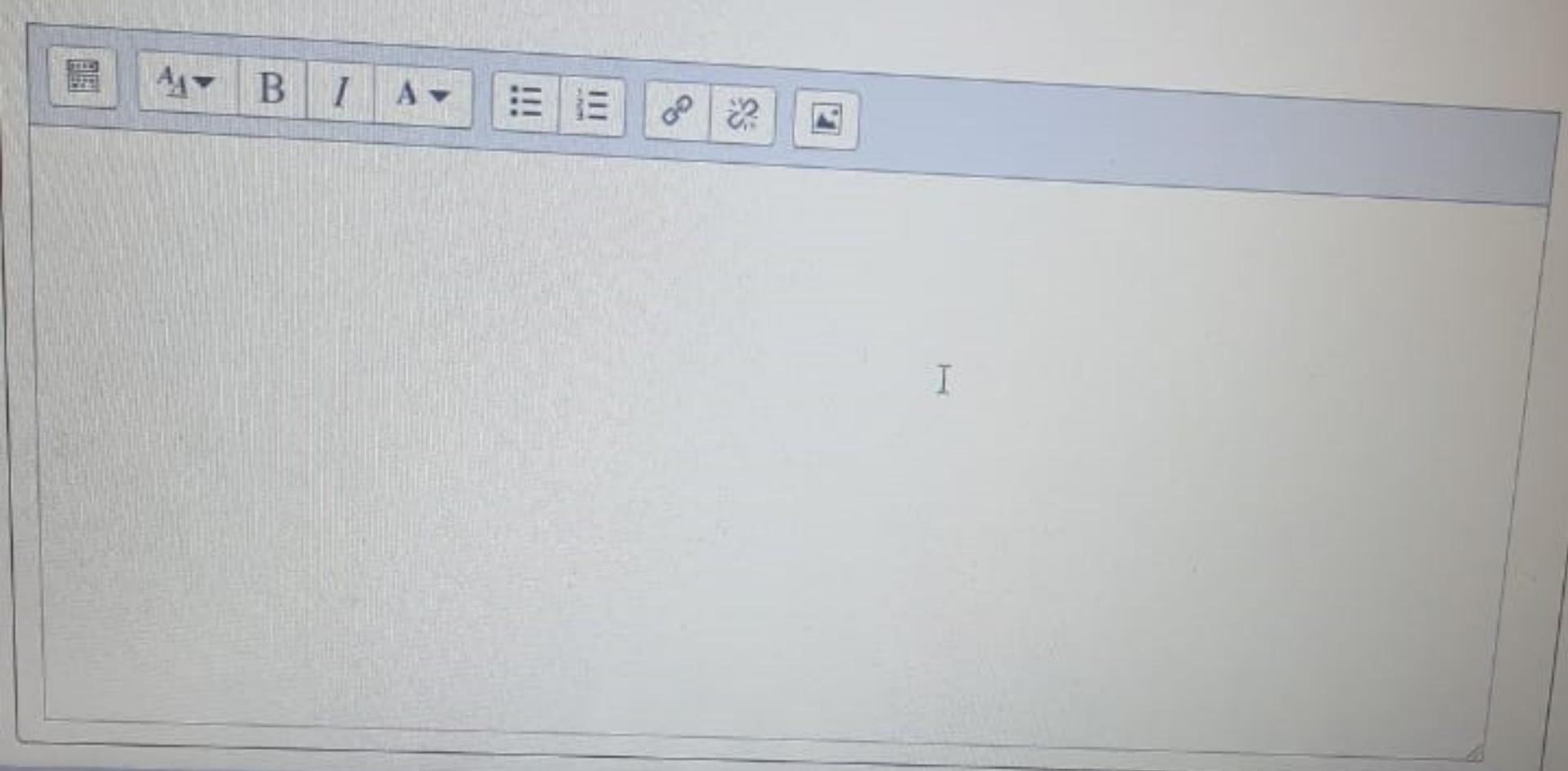
- 1. The variable 'b' is a local variable of main function.
- 2. calSum() function will return 9.
- 3. The value of 'a' is printed as 6.
- 4. The variable 'b' is a local variable of calSum() function.
- 5. The value of 'a' is printed as 5.



The center decides to offer a discount of 15% from the bill amount for all the purchases in new year season. An additional discount of 5% from the bill amount will be given to the purchases only made by senior citizens whose age is greater than 60 years.

The age and the bill amount will be passed to the **calDiscount()** function as parameters.

Write a suitable function prototype for **calDiscount()** function.



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Flag question

'Quick cleaners' offers dry cleaning service for their customers based on three service types. The service types and the price per 01 kg of items are mentioned below.

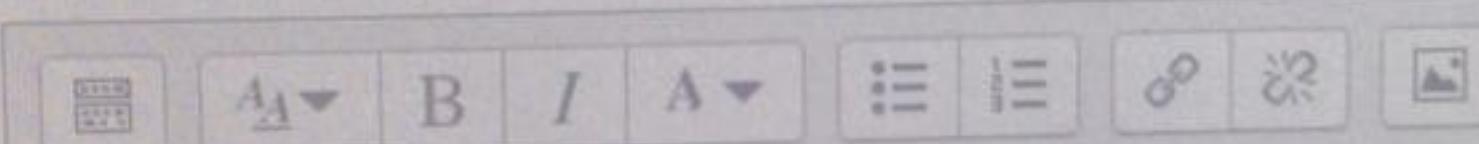
Type	Service Type	Payment for 01kg (Rs.)
1	Urgent service	750
2	One day service	500
3	Normal service	350

If the customer needs delivery service, an additional payment of one thousand will be charged.

Function **calPayment()** calculates and return the payment for the laundry service when the service type, the weight of the items and necessity of delivery are passed as parameters.

If the customer needs delivery service, value "Y" will be passed to the function and otherwise, value "N" will be passed.

Write a suitable function prototype for the function **calPayment()**.



Complete the following program to accomplish the above task.

```
# include <stdio.h>

int main(void)
{
    int numbers[10] = {2, 6, 8, 10, 4, 2, 6, 14, 20, 16};
    int n;
    printf("Input the value of n");
    scanf("%d", &n);
    .....
    .....
    return 0;
}
```

```
for(n=0; n<2; n++)
{
    scanf("%d",&n);
}
for(n=0; n<2; n++)
{
    printf("%d",&n);
}
```

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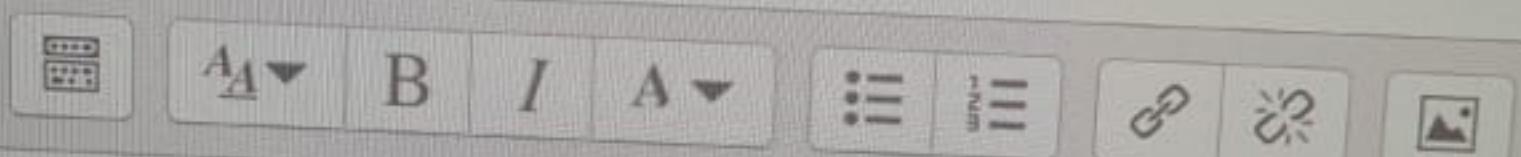
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Sri Lanka Institute of Information Technology

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Write a C program to print the following star pattern.

```
*****
*****
*****
*****
*****
*****
*****
*****
*****
*
*
```



```
    return 0;  
}
```

```
if(salesAmt >500000)  
{  
    if(type ==1)  
    {  
        comm = sales Amt * 5.00/100;  
    }  
    else if(type ==2)  
    {  
        comm = sales Amt * 5.00/100;  
    }  
}  
else{
```

Write a C program to do the following.

1. Define a structure called point which can be used to store x and y coordinates.
2. Declare 2 points A and B.
3. Initialize A and B with suitable values.
4. Calculate and display the distance between the two points.
e.g if two points are A (x1, y1) and B (x2, y2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

A screenshot of a C code editor window. The title bar at the top has several icons: a grid icon, a dropdown arrow, the letter 'A', the letter 'B', the letter 'I', a dropdown arrow, and three horizontal lines. Below the title bar is a toolbar with various icons. The main area of the editor contains the following C code:

```
struct point
{
    I
```



Question 16

Not yet answered

Marked out of
5.00

Flag question

Write a C program to do the following.

1. Define a structure called **point** which can be used to store x and y coordinates of a point.
2. Declare 2 points **A** and **B**.
3. Initialize **A** and **B** with suitable values.
4. Calculate and display the distance between the two points.

e.g if two points are A (x1, y1) and B (x2, y2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



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t answered

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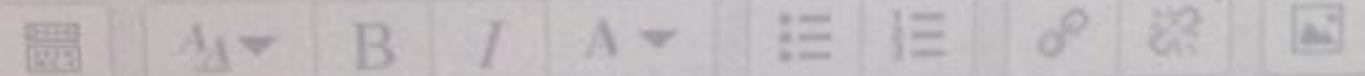
ag question

Consider the following mathematical expression.

$$C = \sqrt{|a| + b^2}$$

Complete the following C program to calculate the C value for given a and b value **using C Standard Math Library functions**

```
# include <stdio.h>
#include<math.h>
int main(void)
{
    int b;
    float a, C;
    a = -2.0;
    b = 4;
    .....
    return 0;
}
```



Question 18

yet answered
marked out of

Flag question

A lecturer has written a C program to store 10 marks of his/her students in an array called **marks**. The marks needs to be in the range of 0 to 100. Complete the following program to determine whether the marks stored in the array are "valid" or "not valid".

e.g : if the marks are 55, 63, 78, 23, 90, 43, 15, 91, 30, 84 then valid

if the marks are 55, 63, 78, 110, 90, 43, 15, 91, 30, 84 then not valid

if the marks are 55, 63, 78, -10, 90, 43, 15, 91, 30, 84 then not valid

```
# include <stdio.h>
int main(void)
{
    int marks[10] = { 80, 30, 23, 78, 98, 47, 39, 40, 10, 89};
```

```
.....
.....
.....
.....
.....
.....
.....
.....
.....
return 0;
}
```

≡ Quiz navigation

Finish attempt ...

Time left 0:27:15



MCQ QUESTIONS (2 M)

1	2	3	4
---	---	---	---

8	9	10
---	---	----

ESSAY QUESTIONS (5 M)

11	12	13	14
----	----	----	----

18	19	20	21
----	----	----	----

ESSAY QUESTIONS (7.5 M)

24	25
----	----

19
answered
out of
question

getUnitPrice() function in the below program returns the unit price of the product when as a parameter.

displayDetails() function displays the product ID , quantity and the amount when they are function.

When the product id and the quantity purchased are entered from the keyboard in the the following C program to calculate and display the amount to be paid using the given

(Hint: amount = quantity * unit price)

```
#include<stdio.h>
float getUnitPrice(int prodID);
void displayDetails(int prodID, int qty, float amount);
int main(void)
{
    int productID, quantity;
    printf("Enter product ID :"); //input values from keyboard
    scanf("%d",&productID);
    printf("Enter quantity :");
    scanf("%d",&quantity);

    //calculate amount and display
```

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acer

S W I F T



Question 18

Not yet answered

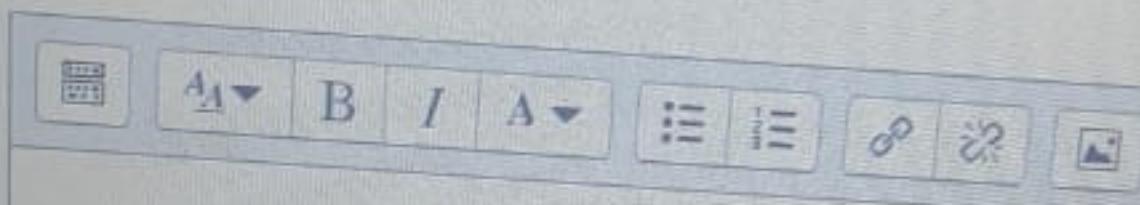
Marked out of

0.00

Flag question

Write a C program to print the following star pattern.

```
*****
*****
*****
*****
*****
*****
*****
*****
**
*
```



Question 17

Not yet answered

Marked out of
5.00 Flag question

Write a C program to do the following.

1. Define a structure called **point** which can be used to store x and y coordinates of a point.
2. Declare 2 points **A** and **B**.
3. Initialize **A** and **B** with suitable values.
4. Calculate and display the distance between the two points.

e.g if two points are A (x1, y1) and B (x2, y2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



A ▾

B

I

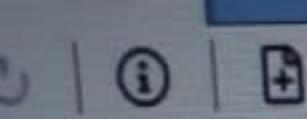
A ▾



```
return 0;
```

```
}
```

```
int i;  
for (i=0; i<10; i++)  
{  
printf("%d\n",marks[i]);  
if (marks <=100)  
{  
printf("if the marks are %d%d%d%d%d%d%d%d%d then valid\n");  
}  
else{  
printf("if the marks are %d%d%d%d%d%d%d%d%d then not valid\n");  
}
```



To test the given function, write two suitable assert statements.

This function will return displacement(s) of an object when its initial velocity (u), acceleration (a), and time (t) are passed as parameters.

```
double calculate(double u, double a, double t)
{
    double s = u * t + (a * t * t) / 2;
    return s;
}
```

Sample data

Displacement (s) / m	Initial velocity (u) / ms ⁻¹	Acceleration (a) / ms ⁻²	Time (t) / s
750.0	25.0	10.0	10.0
2000.0	50.0	5.0	20.0
-812.5	100.0	25.0	5.0
1365.0	125.0	20.0	7.0



Consider the following mathematical expression.

$$C = \sqrt{|a| + b^2}$$

Complete the following C program to calculate the C value for given a and b value using C Standard Math Library functions

```
# include <stdio.h>
#include<math.h>
int main(void)
{
    int b;
    float a, C;
    a = -2.0;
    b = 4;
    .....
    return 0;
}
```

≡ Qu

Finish a

Time let

i

MCQ QL

1 :

8 9

ESSAY Q

11 12

18 19

ESSAY Q

24 25

19

answered

out of

question

Consider the following mathematical expression.

$$A = \sqrt[3]{|x - h| + k^2}$$

Complete the following C program to calculate the A value for given x,h and k value using Standard C Math Library functions.

```
# include <stdio.h>
# include <math.h>
int main(void)
{
    float A, x, h, k;
    x = 2.0;
    h = 6.0;
    k = 1.0;
    .....
    return 0;
}
```

≡ Q

Finish

Time l

i

MCQ

1

8

ESSAY

11

18

ESSAY

34

A function called **changeArray()** which accept an integer array and number of elements in the array and **add 4** for all the array elements.
Write a suitable function prototype for **changeArray()**

Also complete the following main function to invoke the function **changeArray** with suitable arguments.

```
# include <stdio.h>
```

```
int main(void)
```

```
{
```

```
    int A[5] = { 2, 8, 3, 9, 10};
```

```
.....
```

```
.....
```

```
return 0;
```

```
}
```



```
Function prototype -for(int 0;i<5;i++){
```

```
    A[i]= A[i] + 4;
```

```
}
```

```
Function invoke - changeArray();
```

≡ Quiz navigation

Finish attempt ...

Time left 0:41:22

1

MCQ QUESTIONS (2 MARKS EACH)

1	2	3	4	5	6	7	8
9	10						

ESSAY QUESTIONS (5 MARKS EACH)

11	12	13	14	15	16	17	18
19	20	21	22	23			

ESSAY QUESTIONS (7.5 MARKS EACH)

24	25

FEEDBACK

26

```
float unitPrice;  
if (prodID == 1001)  
    unitPrice = 250.0;  
else if (prodID == 1003)  
    unitPrice = 123.0;  
else if (prodID == 1120)  
    unitPrice = 256.0;  
else  
    unitPrice = 0;  
  
return unitPrice;  
}  
void displayDetails(int prodID, int qty, float amount)  
{  
    printf("Order Details\n");  
    printf("Product ID\tQuantity\tAmount\n");  
    printf("%d\t%d\t%.2f\n", prodID, qty, amount);  
}
```

amount = quantity * unitPrice;
printf("%.2f", amount);

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S W T



A cab service has three types of vehicles for rental service (C-Car from a car, Rs.50.00 from a van and Rs. 75.00 from a bus. 5.0% Discount will be given only to cars and vans. Buses will not get the discount will be given only to cars and vans. Buses will not get the discount received.

Following C program is written to enter the type of the vehicle and calculate and display the discount received.

```
#include<stdio.h>
int main(void)
{
    char type;
    int distance;
    float discount = 0;
    printf("Enter vehicle type:");
    scanf("%c", &type);
    printf("Enter total distance:");
    scanf("%d", &distance);
    if(type == 'C' || type == 'c')
        discount = 5.0;
    else if(type == 'V' || type == 'v')
        discount = 5.0;
    else
        discount = 0;
    float total = distance * 50.0;
    float final = total - (total * discount / 100);
    printf("Total amount: %.2f", final);
}
```

return 0;

DELL

NetExam

Sri Lanka Institute of Information Technology

Write a C program to read the details of 5 online orders (Order ID, Item No, Quantity) and store them in a text file called "orders.dat" in the below format.

Order ID	Item No	Quantity
-----	-----	-----
-----	-----	-----



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S W | F



Question 17

Not yet answered

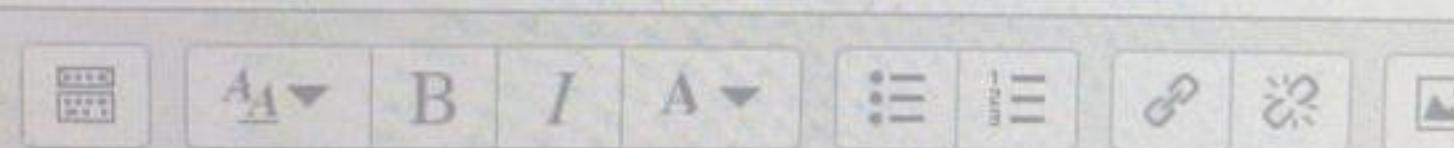
Marked out of
5.00 Flag question

Write a C program to do the following.

1. Define a structure called **point** which can be used to store x and y coordinates of a point.
2. Declare 2 points **A** and **B**.
3. Initialize **A** and **B** with suitable values.
4. Calculate and display the distance between the two points.

e.g if two points are A (x1, y1) and B (x2, y2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



x New Tab x

NetExam

Sri Lanka Institute of Information Technology

A cab service has three types of vehicles for rental service (C- Car, V- Van, B- Bus). Rs.40.00 will be charged per kilometer from a car, Rs.50.00 from a van and Rs. 75.00 from a bus. 5.0% discount is given if the total distance is above 100 km. Discount will be given only to cars and vans. Buses will not get the discount.

Following C program is written to enter the type of the vehicle and the total distance from the keyboard. Complete the program to calculate and display the discount received.

```
#include<stdio.h>
int main(void)
{
    char type;
    int distance;
    float discount = 0;

    printf("Enter vehicle type:");
    scanf("%c", &type);

    printf("Enter total distance:");
    scanf("%d", &distance);
```

DELL

A function called **modifyArray()** accepts a float array and number of elements in the array and increase the value of array elements by 10%.

Write a suitable function prototype for the **modifyArray()**.

Also complete the following main function to invoke the function **modifyArray** with suitable arguments.

```
# include <stdio.h>
int main(void)
{
    float x[5] = { 2, 8, 3, 9, 10};
    .....
    .....
    return 0;
}
```

Function prototype -

Function invoke -



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ed out of

ag question

Function called `calDiscount()` calculates and return the discount given to a customer by an optical service center called 'Good vision'.

The center decides to offer a discount of 15% from the bill amount for all the purchases in new year season. An additional discount of 5% from the bill amount will be given to the purchases only made by senior citizens whose age is greater than 60 years.

The age and the bill amount will be passed to the `calDiscount()` function as parameters.

Write a suitable function prototype for `calDiscount()` function.

≡ Quiz navig

Finish attempt ...

Time left 0:16:34

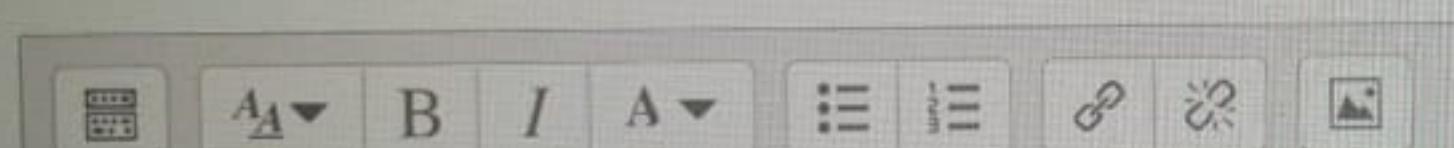


MCQ QUESTIONS

1	2	3
8	9	10

ESSAY QUESTIONS

11	12	13
18	19	20





Write a C program to do the following.

1. Define a structure called **point** which can be used to store x and y coordinates of a point.
2. Declare 2 points **A** and **B**.
3. Initialize **A** and **B** with suitable values.
4. Calculate and display the distance between the two points.
e.g if two points are A (x1, y1) and B (x2, y2)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

The screenshot shows a code editor window with a toolbar at the top containing icons for file operations, a dropdown menu, and other tools. Below the toolbar is a text input field where the word "point" has been typed. The rest of the screen is a large, empty workspace.

ed
ion

Complete the following flowchart to do the following.

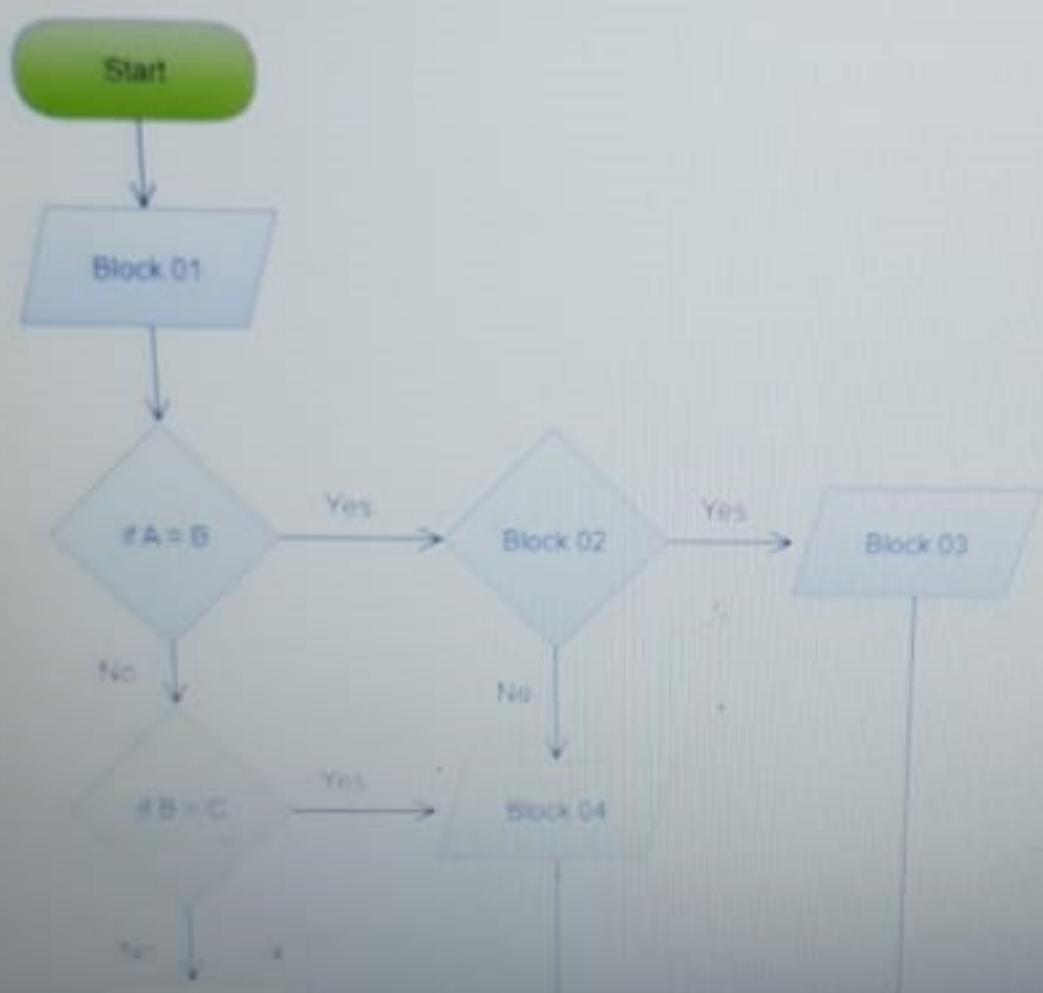
1. Input lengths of three sides of a triangle A, B, C.

2. Determine and display whether the triangle is "isosceles", "equilateral", or "scalene".

Hint: In an equilateral triangle three sides are equal.

In an isosceles triangle two sides are equal.

In a scalene triangle three sides are not equal.





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INSTITUTE OF INFORMATION TECHNOLOGY

Sri Lanka Institute of Information Technology

A lecturer has written a C program to store 10 marks of his/her students in the range of 0 to 100. Complete the following program to determine or "not valid".

e.g.: if the marks are 55, 63, 78, 23, 90, 43, 15, 91, 30, 84 then valid
if the marks are 55, 63, 78, 110, 90, 43, 15, 91, 30, 84 then not valid
if the marks are 55, 63, 78, -10, 90, 43, 15, 91, 30, 84 then not valid

```
#include <stdio.h>
```

```
int main(void)
```

```
    int marks[10] = { 80, 30, 23, 78, 98, 47, 39, 40, 10, 89};
```

```
    return 0;
```

DELL

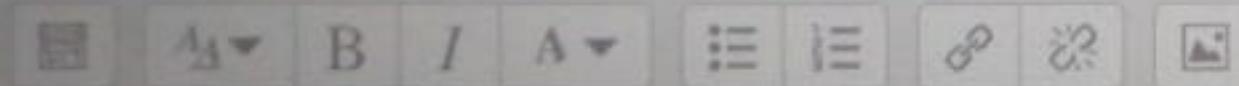
To test the given function, write two suitable assert statements.

This function will return displacement(s) of an object when its initial velocity (u), acceleration (a), and time (t) traveled are passed as parameters.

```
double calculate(double u, double a, double t)
{
    double s = u * t + (a * t * t) / 2;
    return s;
}
```

Sample data

Displacement (s) / m	Initial velocity (u) / ms ⁻¹	Acceleration (a) / ms ⁻²	Time (t) / s
750.0	25.0	10.0	10.0
2000.0	50.0	5.0	20.0
812.5	100.0	25.0	5.0
1365.0	125.0	20.0	7.0



```
assert(calculate(25.0, 10.0, 10.0) == 750.0);
assert(calculate(100.0, 25.0, 5.0) == 812.5);
```

A function called **changeArray()** which accept an integer array and number of elements in the array and add 4 for all the array elements.

Write a suitable function prototype for **changeArray()**

Also complete the following main function to invoke the function **changeArray** with suitable arguments.

```
# include <stdio.h>
int main(void)
{
    int A[5] = { 2, 8, 3, 9, 10};
    .....
    .....
    return 0;
}
```



Function prototype -

Function Invoke -

≡ Quiz nav

Finish attempt ...

Time left 0:10:37



MCQ QUESTIONS

1	2	3
8	9	10

ESSAY QUESTIONS

11	12	13	14
18	19	20	21

ESSAY QUESTIONS(7)

24	25
----	----

FEEDBACK

26



NetExam

Sri Lanka Institute of Information Technology

A function called **modifyArray()** accepts a float array and number of elements in the value of array elements by 10%.

Write a suitable function prototype for the **modifyArray()**.

Also complete the following main function to invoke the function **modifyArray** with s

```
# include <stdio.h>
```

```
int main(void)
```

```
{
```

```
    float x[5] = { 2, 8, 3, 9, 10};
```

```
    .....  
    .....
```

```
    return 0;
```

```
}
```

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acer

S W L F

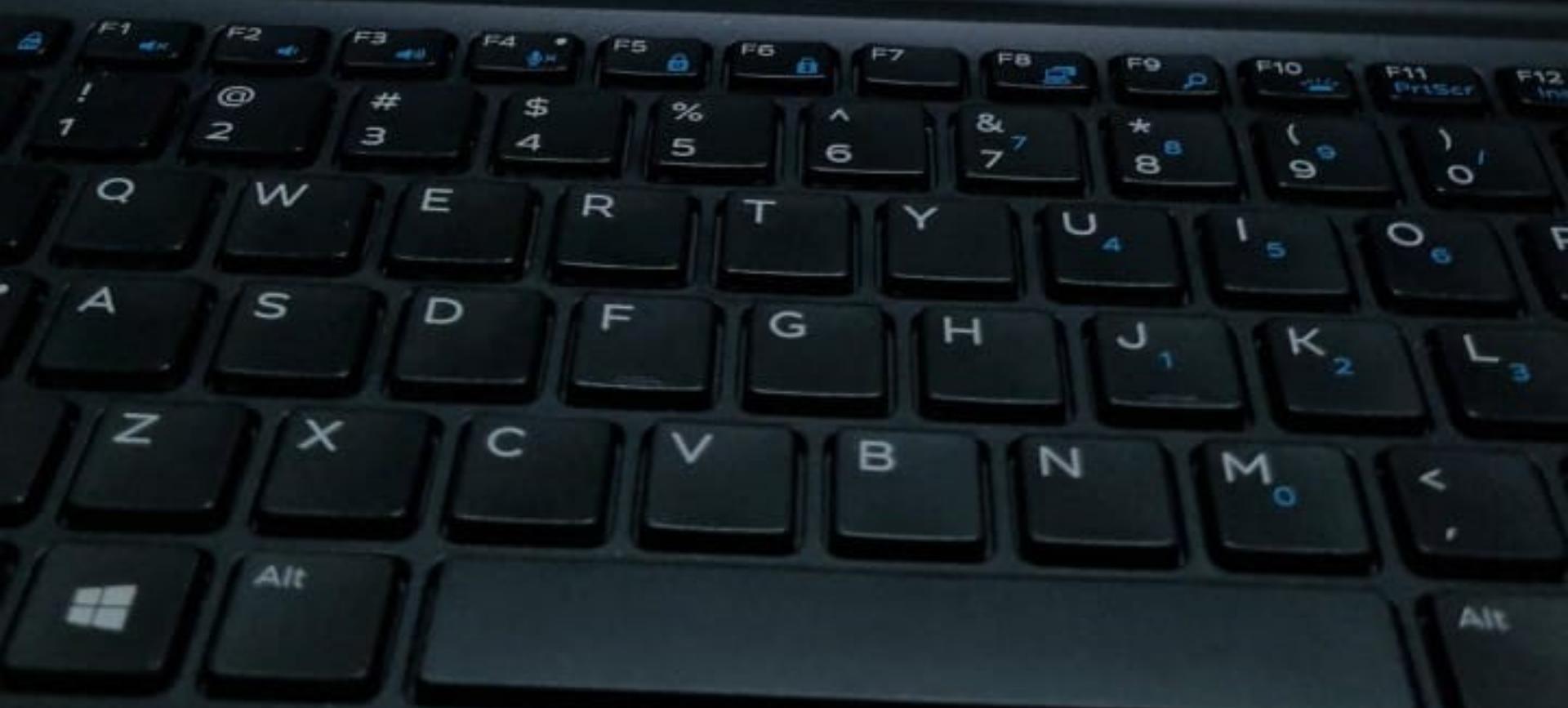


Following program is written by a student to display the result of the following expression when integer number $n (>0)$ is entered from the keyboard. There are errors in the program. Find the line numbers with errors and correct them.

A = n * (n-1) * (n-2) * ... * 1

```
1. #include<stdio.h>
2. int main(void)
3. {
4.     int n, ans = 0;
5.     scanf("%d", n);
6.
7.     while (n >= 1)
8.     {
9.         ans = ans + n;
10.        n = n + 1;
11.    }
12.    printf("Result is ans \n");
13.
14.    return 0;
15. }
```

DELL





Question 19

Not yet answered

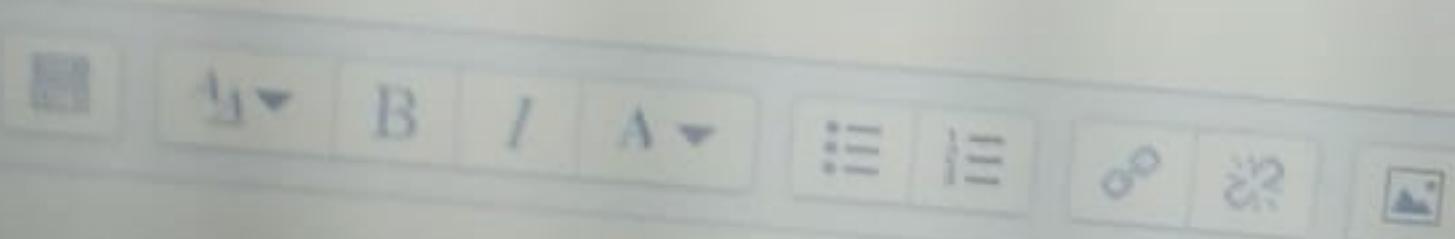
Marked out of
0.00

Flag question

Write a C program to print the following star pattern.

**

*





Question 21

Not yet answered

Marked out of
5.00

Flag question

A function called `modifyArray()` accepts a float array and number of elements as parameters. It increases the value of array elements by 10%.

Write a suitable function prototype for the `modifyArray()`.

Also complete the following main function to invoke the function `modifyArray` with the required arguments.

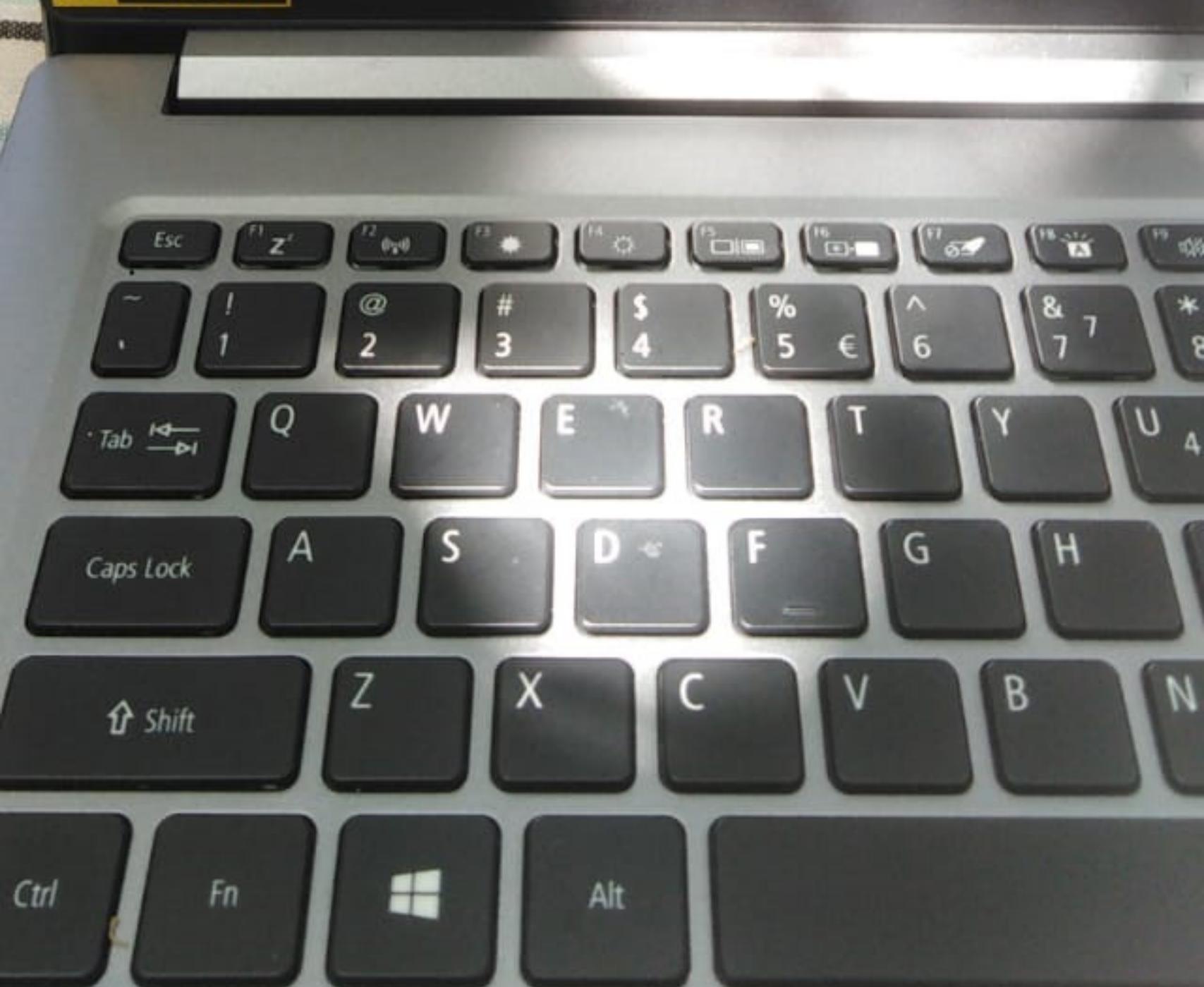
```
# include <stdio.h>
int main(void)
{
    float x[5] = { 2, 8, 3, 9, 10 };
    .....
    return 0;
}
```

Function prototype -

Function invoke -

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acer



A cab service has three types of vehicles for rental service (C - Car, V - Van, B - Bus). Rs.40.00 will be charged per kilometer from a car, Rs.50.00 from a van and Rs. 75.00 from a bus. 5.0% discount is given if the total distance is above 100 km. Discount will be given only to cars and vans, buses will not get the discount.

Following C program is written to enter the type of the vehicle and the total distance from the keyboard. Complete the program to calculate and display the discount received.

```
#include<stdio.h>
int main(void)
{
```

```
    char type;
    int distance;
    float discount = 0;
```

```
    printf("Enter vehicle type:");
    scanf("%c", &type);
```

```
    printf("Enter total distance:");
    scanf("%d", &distance);
```

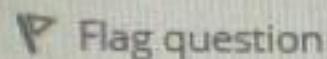
```
    return 0;
}
```



Question 19

Not yet answered

Marked out of
5.00



A lecturer has written a C program to store 10 marks of his/her students in an array called **marks**. The marks needs to be in the range of 0 to 100. Complete the following program to determine whether the marks stored in the array are "valid" or "not valid".

e.g : if the marks are 55, 63, 78, 23, 90, 43, 15, 91, 30, 84 then valid

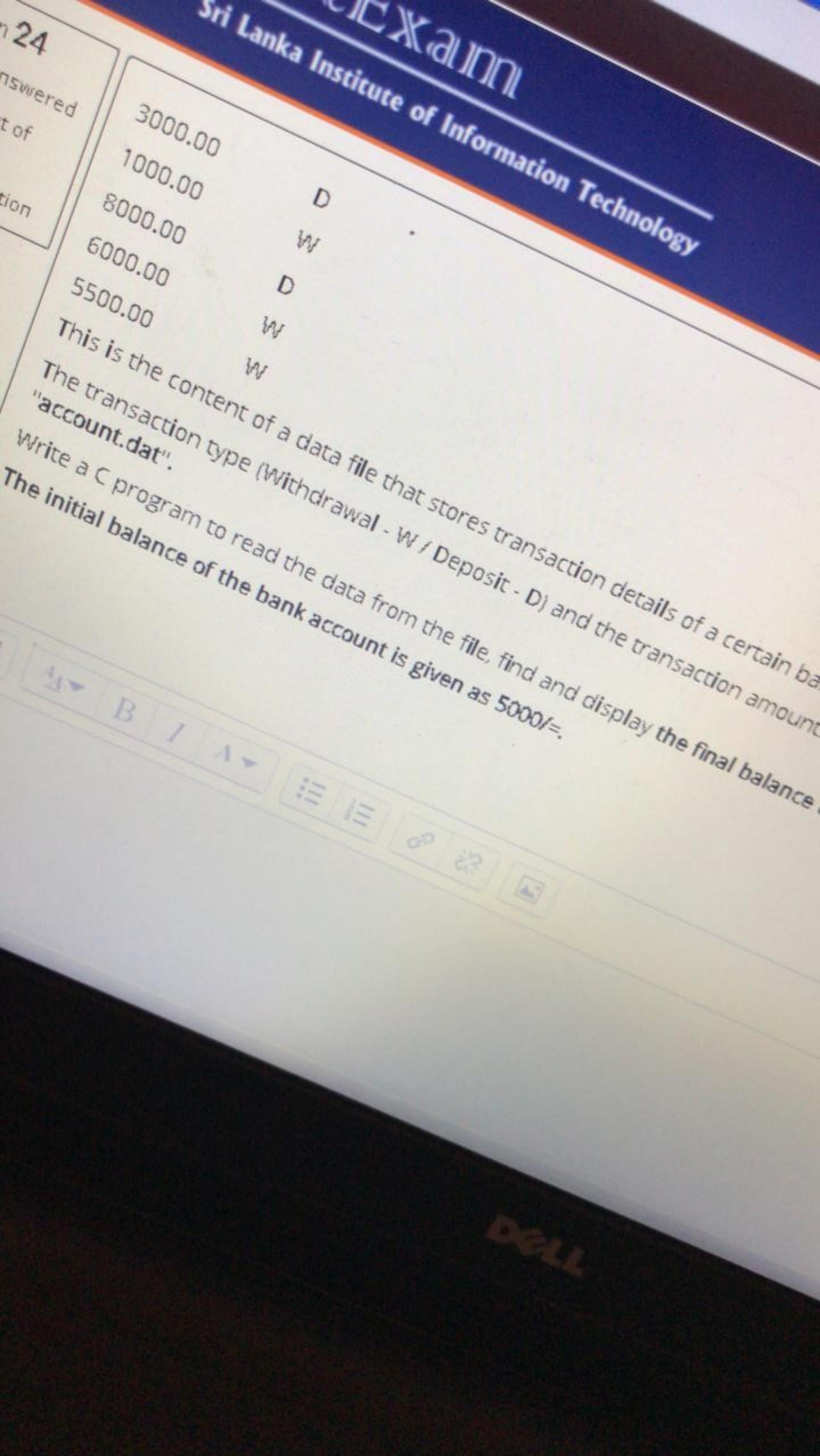
If the marks are 55, 63, 78, 110, 90, 43, 15, 91, 30, 84, then not valid.

if the marks are 55, 63, 78, -10, 90, 43, 15, 91, 30, 84 then not valid

```
# include <stdio.h>
int main(void)
{
    int marks[10] = { 80,30,23,78,98,47,39,40,10,89};
```

```
return 0;
```

3



There are three types of sales representatives(type 1, type 2 or type 3) in a company. Company will give commission rate to the sales representatives by considering their monthly sales amount. Type 1 and type 2 sales representatives will get the commission. Type 3 sales representatives are not eligible for the commission.

Commission will be given only if total sales amount is more than Rs 500000.00.

Following C program is written to enter the type of the sales representative and the sales amount from the keyboard. Complete the program to calculate and display the commission of the sales representative.

(Hint: commission = sales amount * commission rate)

```
#include<stdio.h>
int main(void)
{
    int type;
    float salesAmt, comm = 0;
```

```
    printf("Enter sales representative type:");
    scanf("%d", &type);
```

```
    printf("Enter monthly sales amount:");
    scanf("%f", &salesAmt);
```

D80

acer



Hint : ASCII value of a is 97 and z is 122.

ASCII value of A is 65 and Z is 90.

Ex.

Before

M	a	R	k	e	t
---	---	---	---	---	---

After

M	*	R	*	*	*
---	---	---	---	---	---

```
for(int i= 0; i<6;i++){
    if(myarray[i] <= 97)
        myarray[i] = "*";
}
```

13

not answered
out of
ag question

≡ Qu

Function called **calDiscount()** calculates and return the discount given to a customer by an optical service center called 'Good vision'.

The center decides to offer a discount of 15% from the bill amount for all the purchases in new year season. An additional discount of 5% from the bill amount will be given to the purchases only made by senior citizens whose age is greater than 60 years.

The age and the bill amount will be passed to the **calDiscount()** function as parameters.

Write a suitable function prototype for **calDiscount()** function.

Finish at

Time left

1

MCQ QU

1 2

9 10

ESSAY QU

11 12

19 20

ESSAY QU

24 25

FEEDBACK

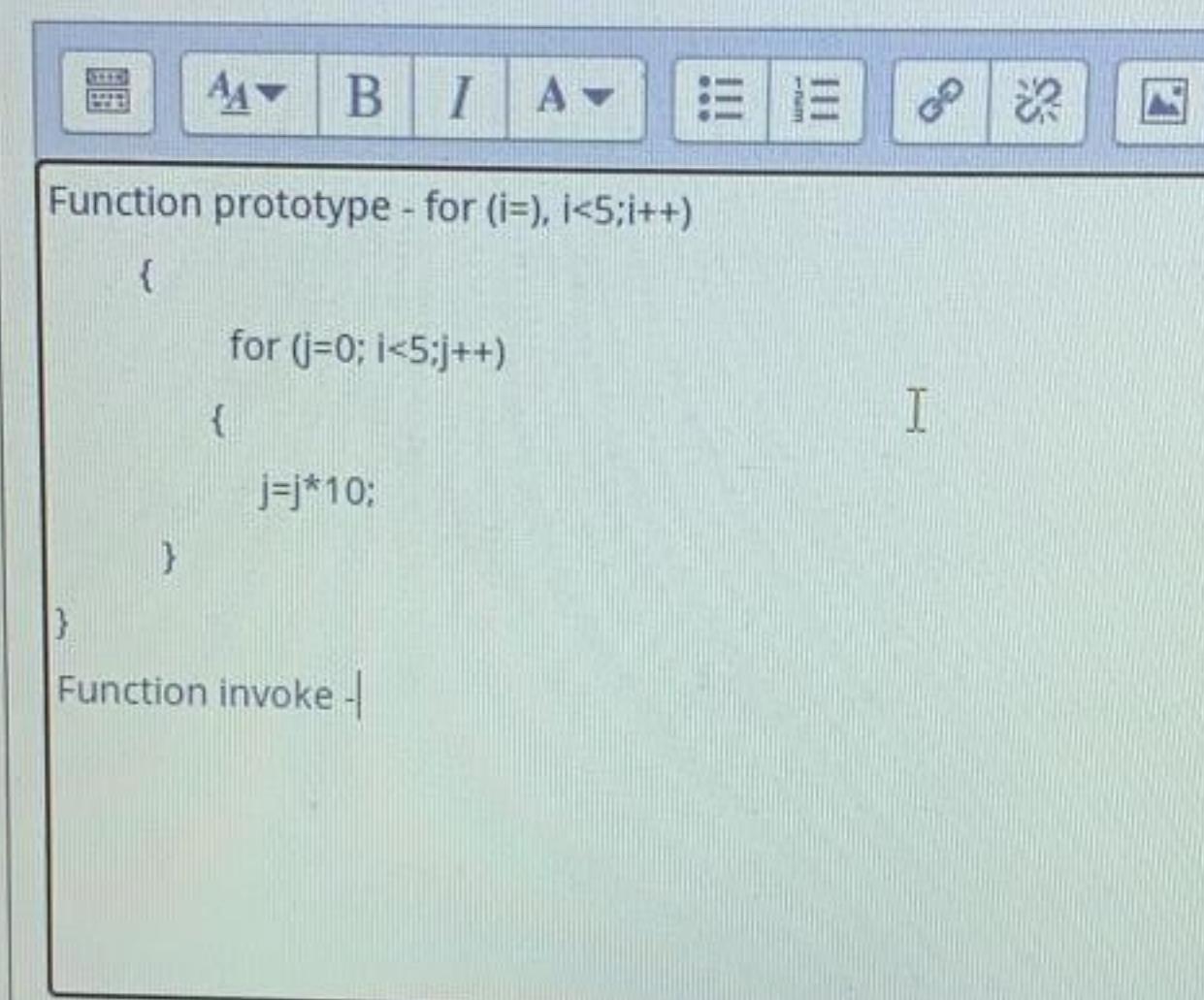
26

```
void calDiscount()  
{  
    if(age > 60)  
        discount = amount * 20%;  
    else  
        discount = amount * 15%;  
    return discount;  
}
```

```
float x[5] = { 2, 8, 3, 9, 10};
```

```
.....  
.....  
return 0;
```

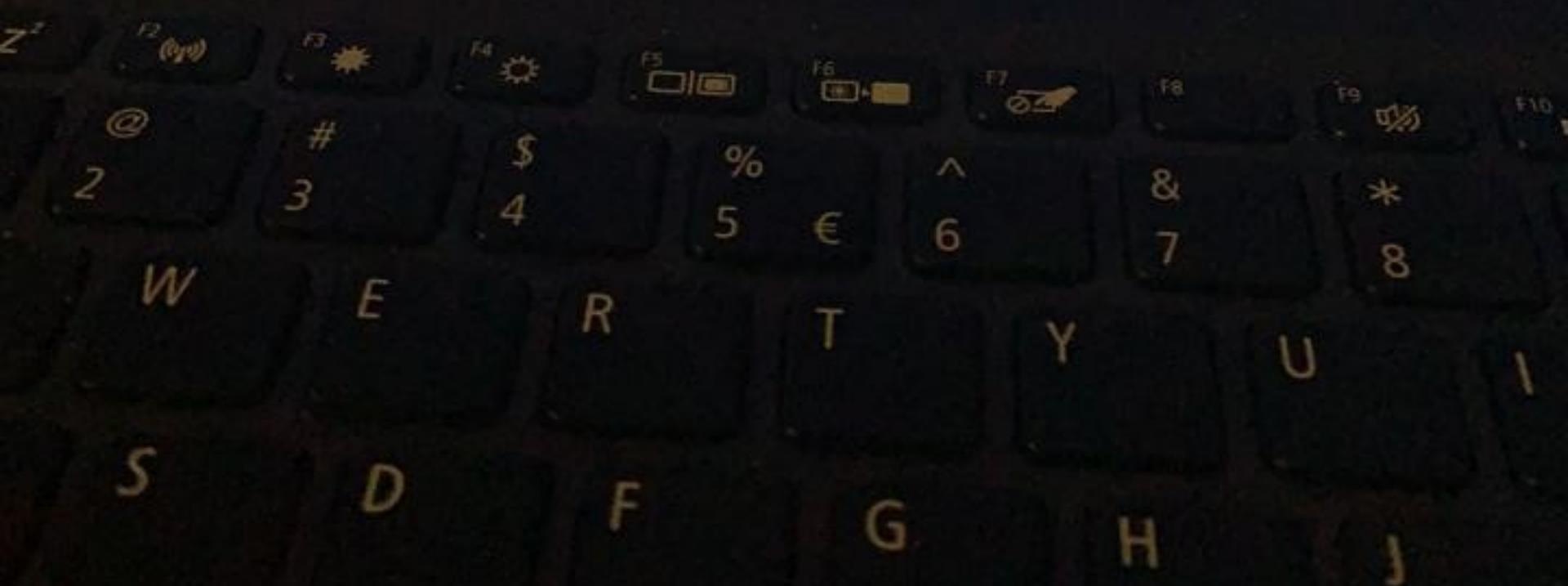
```
}
```



The screenshot shows a software interface with a toolbar at the top containing various icons. Below the toolbar is a code editor window. The code in the editor is:

```
Function prototype - for (i=), i<5;i++)  
{  
    for (j=0; i<5;j++)  
    {  
        j=j*10;  
    }  
}  
Function invoke -|
```

acer





Write a C program to do the following.

1. Define a structure called **center** which can be used to store x and y coordinates of center of a circle.
2. Declare 2 center points **C1** and **C2**.
3. Initialize **C1** and **C2** with suitable values.
4. Calculate and display the distance between the centers.

e.g if two center points are **C1** (**x₁**, **y₁**) and **C2** (**x₂**, **y₂**)

$$\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

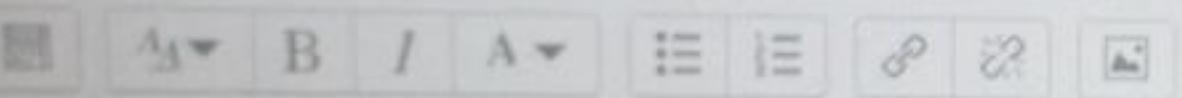
≡ Quiz nav

Finish attempt...

Time left 1:09:52

i

MCQ QUESTIONS



```
struc center {  
    long x,  
    long y,  
}C1,C2  
  
struct center C1;  
struct center C2;  
C1.x=100.1212;  
C1.y=234.1234;  
C2.x=23.123  
C2.y=53.345
```

1 2 3

9 10

ESSAY QUESTIONS

11 12 13 14

19 20 21 22

ESSAY QUESTIONS(7)

24 25

26

FEEDBACK

26

23

nswered
out of
question

Write a C program to read covid-19 patient details(Division ID, Number of patients) of 5 divisions from the keyboard and store them in a text file called “patients.dat”.

Division ID No of patients

----- -----
----- -----



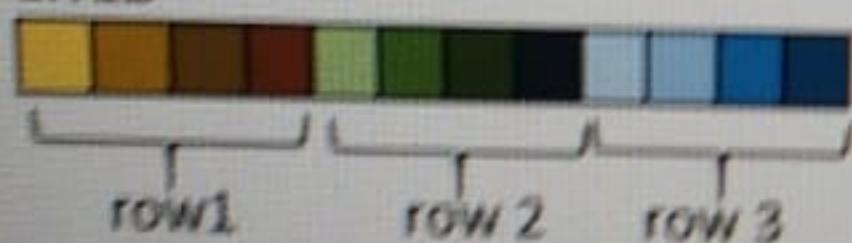


NetExam

Sri Lanka Institute of Information Technology

Write a C program to read numbers from the keyboard and store them in an array of size 3×4 called *arr2D* and populate it with the values of *arr1D*. Complete the program.

arr1D

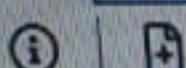


arr2D



```
#include<stdio.h>
int main(void)
{
    int arr1D[12];
    int arr2D[3][4]; //create 2D array
    int i;
    for(i = 0; i <12; i++)
    {
        scanf("%d", &arr1D[i]); // store values in 1D array
    }
    // read 1D array and store the values in 2D array
    .....
    .....
    .....
    .....
    return 0;
}
```

x New Tab x



NetExam

Sri Lanka Institute of Information Technology

Write a C program to read the details of 5 online orders (Order ID, Item No, Quantity) from the keyboard in a text file called "orders.dat" in the below format.

Order ID	Item No	Quantity
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----



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NetExam

Sri Lanka Institute of Information Technology

Quick cleaners' offers dry cleaning service for their customers based on three service types and the price per 01 kg of items are mentioned below.

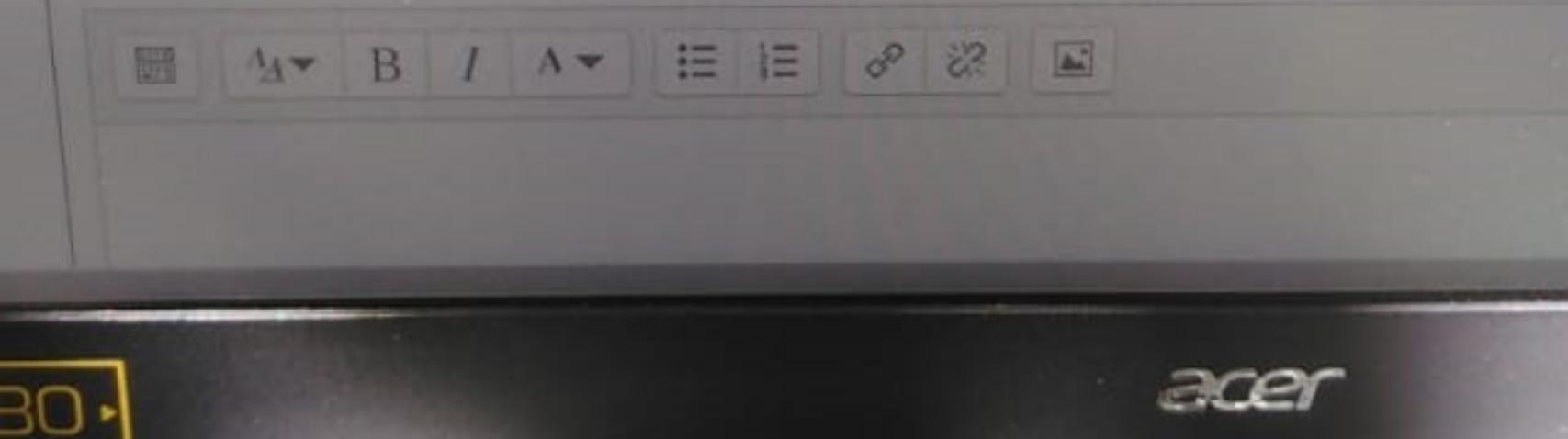
Type	Service Type	Payment for 01kg (Rs.)
1	Urgent service	750
2	One day service	500
3	Normal service	350

If the customer needs delivery service, an additional payment of one thousand will be charged.

Function **calPayment()** calculates and return the payment for the laundry service when the weight of the items and necessity of delivery are passed as parameters.

If the customer needs delivery service, value "Y" will be passed to the function and otherwise "N" will be passed.

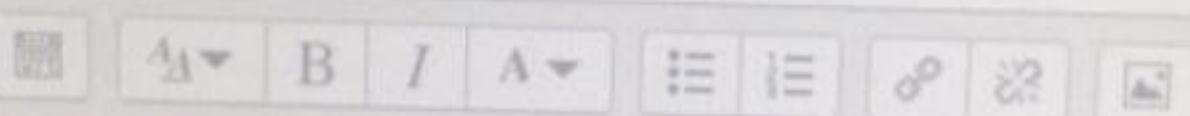
Write a suitable function prototype for the function **calPayment()**.



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Write a C program to print the following star pattern.

```
*****  
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```



SAMSUNG

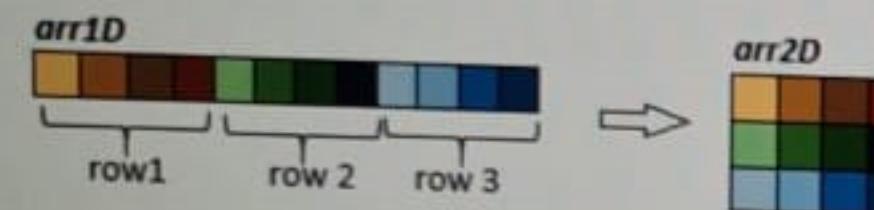
Question 25

Not yet answered

Marked out of
7.50

Flag question

Write a C program to read numbers from the keyboard and store in a 1D integer array of size 12 called *arr1D*. Create another 2D integer array of size 3 x 4 called *arr2D* and populate it with the values stored in *arr1D* as shown below. Part of the program is written below. Complete the program.

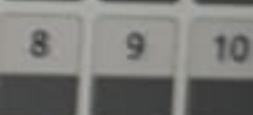
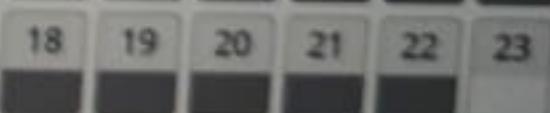
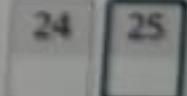


```
#include<stdio.h>
int main(void)
{
    int arr1D[12];
    int arr2D[3][4]; //create 2D array
    int i;
    for(i = 0; i <12; i++)
    {
        scanf("%d", &arr1D[i]); // store values in 1D array
    }
    // read 1D array and store the values in 2D array
    .....
}
```

Quiz navigation

Finish attempt ...

Time left 0:02:56

**MCQ QUESTIONS (2 MARKS EACH)****ESSAY QUESTIONS (5 MARKS EACH)****ESSAY QUESTIONS(7.5 MARKS EACH)**

FEEDBACK

Nimantha Sliit A3

Today, 09:48



```
14.  
15.  
16. } return 0;  
printf("Result is %d\n");
```

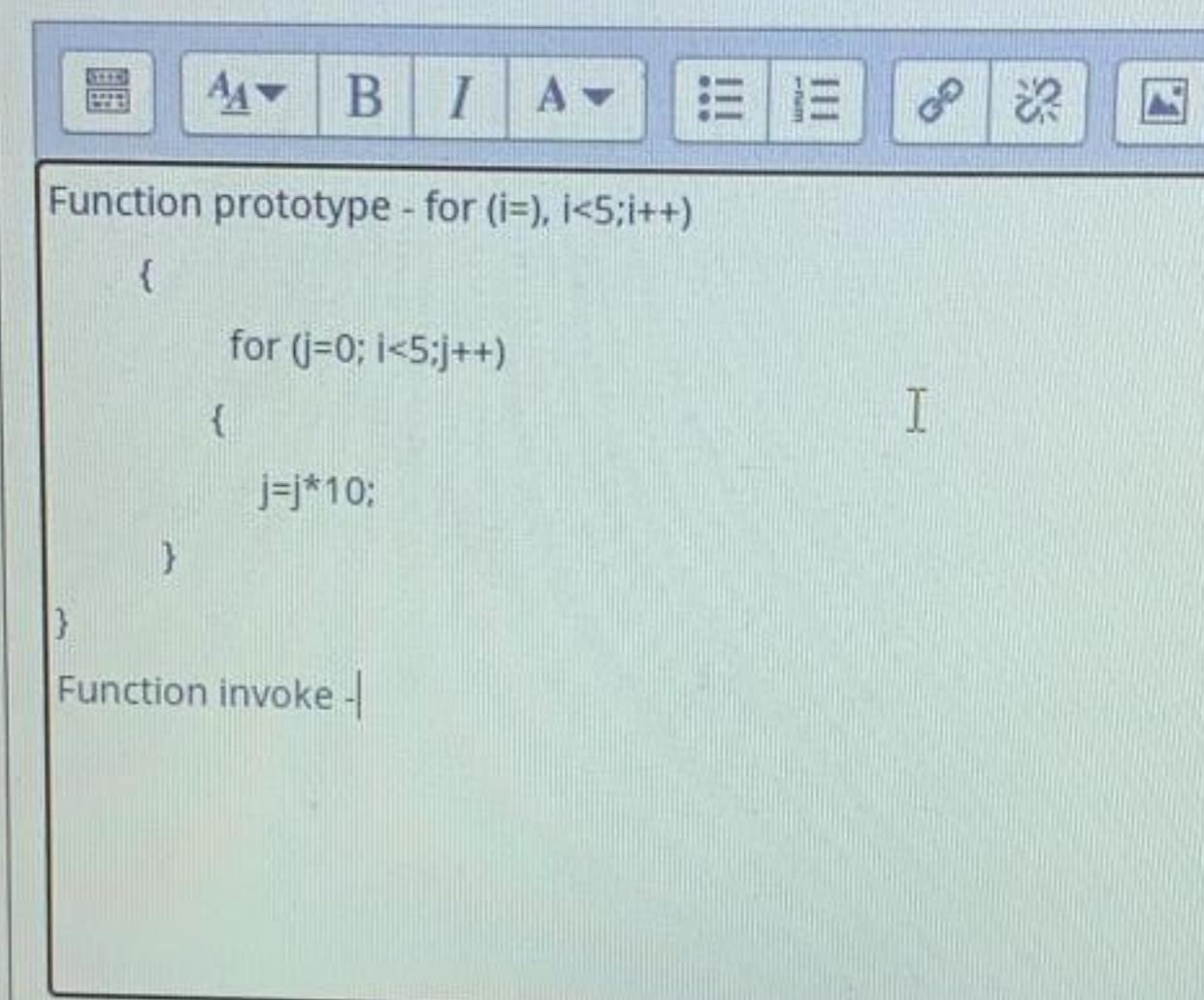
Line Number | Corrected Statement

Line Number	Corrected Statement
5	scanf("%d", &n);
8	while (n > 0)
10	// Add numbers in a loop
13	tot = tot + n;
	printf("Result is %d\n", tot);

```
float x[5] = { 2, 8, 3, 9, 10};
```

```
.....  
.....  
return 0;
```

```
}
```



The screenshot shows a software interface with a toolbar at the top containing various icons. Below the toolbar is a code editor window. The code in the editor is:

```
Function prototype - for (i=), i<5;i++)  
{  
    for (j=0; i<5;j++)  
    {  
        j=j*10;  
    }  
}  
Function invoke -|
```

acer

