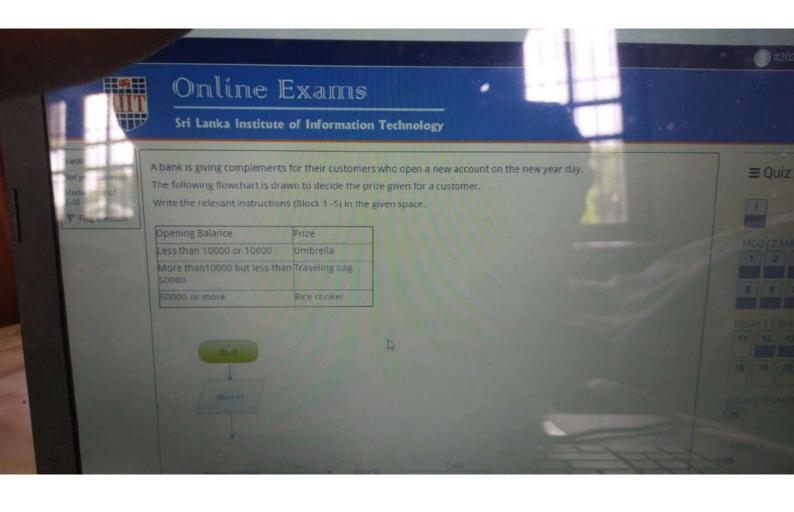


Sri Lanka Institute of throw Write two assert statements to test the following function. int calculatePoints(float purchaseAmount) if(purchaseAmount >= 5000) return 500; else if(purchaseAmount >= 3000) return 200; else if(purchaseAmount >= 1000) return 100; else return 25;



Complete the following C program to solve the given expression. Use Standard C math library function.

$$C = \sqrt{a^2 + b^2 - 2ab\cos\emptyset}$$

Hint: if angle is 90 degrees, cosine will be cos (90 * 3.141592/180)

B 4 B / E E 8 8 E

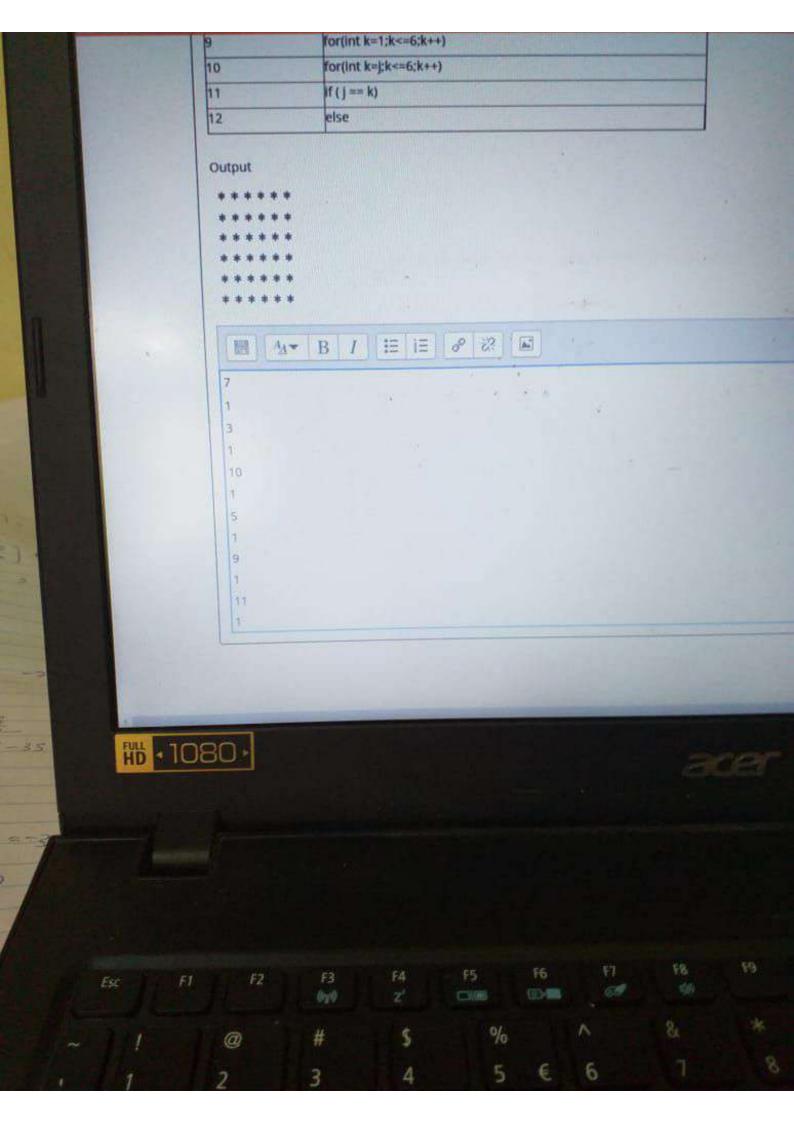
#include <stdio.h> # include <math.h>

int main()

float a = 3, b = 4, c; float angle = 90 * 3.141592/180;

return 0;

}





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Question 17

5.00

Not yet answered Marked out of

P Rag question

Consider the following table having two columns. First column has line numbers and the second has different expressions. Write the line numbers of the relevant statements in correct order to obtain the following output

87

ło	Supportive components for program writing		
2	TAIL TO THE PARTY OF THE PARTY		
3	for(int j=0;j<=6;j++)		
4	printf("* ");		
5	for(int j=1;j<=6;j++)		
6	printf("\n"):		
7	for(int j=0;j<=16;j++):		
8	for(int j=1:j == 6:j++)		
9	for(int k=1;k<=6;k++)		
10	for(int k=j:k<=6;k++) -		
1.1	if (j == k)		
12	else		

F5

%

②-機

Output

(99)



A company gives annual increments for their employees based on the following table. Category B increment amount = increment percentage * salary Implement a function called calincrement() which calculates the increment when the salary and the empl float calincrement(float salary, char empCategory) switch(empCategory) case 'A': return salary * (4.0/100.00); break; case 'B': return salary * (6.0/100.00); break; case 'C': return salary * (8.0/100.00); break;



Question 15
Not yet answered

Marked out of 5.00

P Flag question

A 2D array called att is used to store the attendance of 4 students in a class. A sample dataset is shown below.

1	0	1	1	1	1
1	7	1	1	1	
1	1	0	1	1	
1	1	1	13	1	

Complete the following C code to determine and display the students (row number) who has attended to the class all five days.

in this example the students numbers are 2, 4

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

return 0;

int i, j, sum=0;

≡ Quiz na

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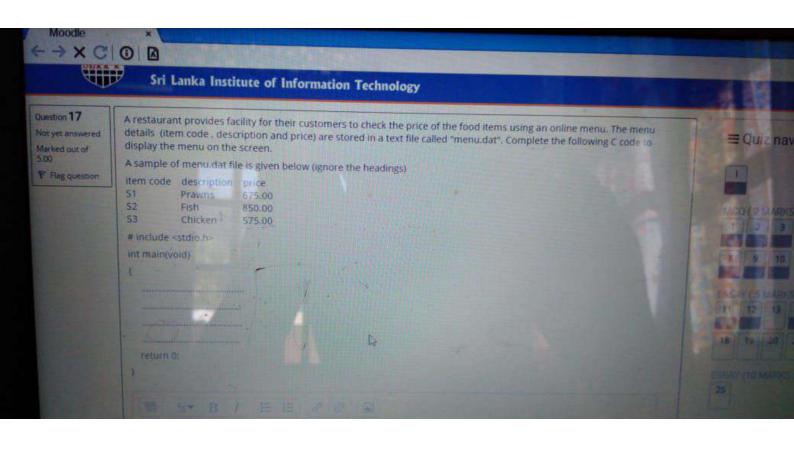
for(i= 0; i<5; i++) { for(j=0; j<5; j++)

if(att[i][j] == 1) sum++;

if(sum==5) printf(" %d", i);

sum=0;

}





d

Ontline Exams

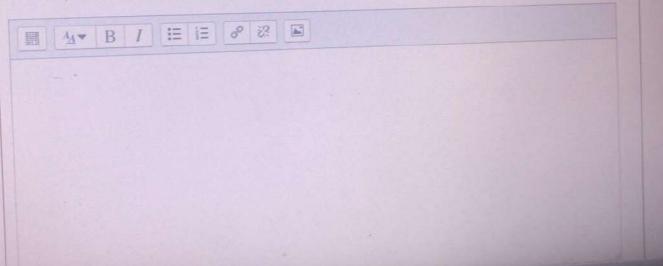
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A bank uses a function called newBalance() to calculate the new account balance of a customer when the transaction type(w - withdrawal , d - deposit), deposit or withdrawal amount and current balance are given.

Implement a function called newBalance() which takes the transaction type(w - withdrawal, d - deposit), amount and current balance as parameters and calculate and return the new balance.

e.g. for withdrawal , new balance = current balance - amount

for deposit, new balance = current balance + amount



■ Quiz navigat

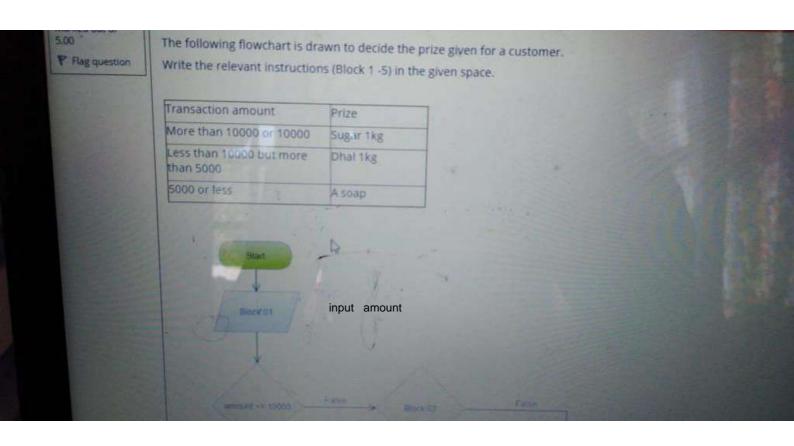


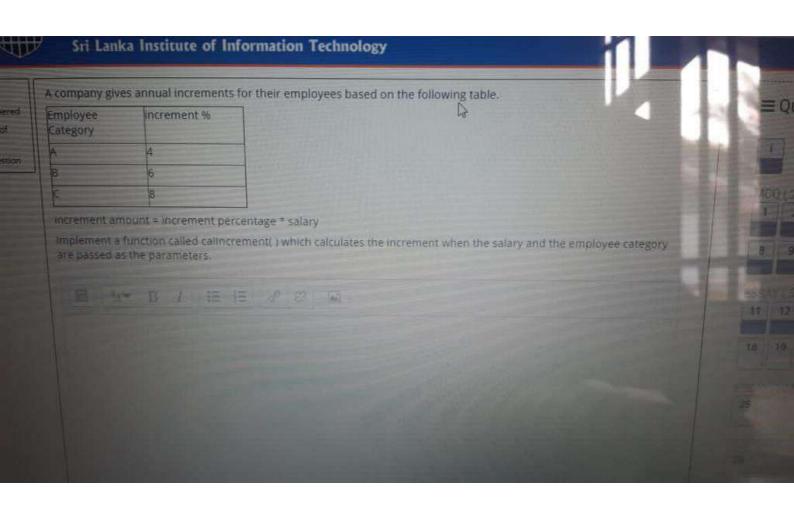
1 2 3

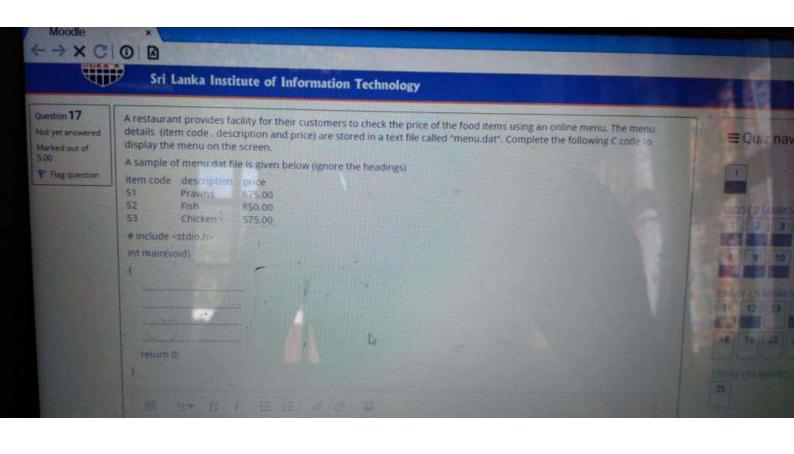


25 Z5

FEEDBACK







Question 3 Select incorrect statement/s regarding "w" file opening mode. Not yet answered FILE *ptr: ptr = fopen("readMe.dat","w"); Marked out of 2.00 P Rag question Select one: 1. If the file doesn't exists, the file pointer will be always null 8 2. The "readMe.dat" file will be empty 0 3. The content will be added to the beginning of the file 0 4. If the file exist, it will over write the previous content. × 5. If the file doesn't exist, a new file will be created. 間・1080・ % 0 € 6 R W Q G D 5 A Caps Lock 1 Shift



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Street or other

Waterbooms USE

P REPORTS

The C statement of $g_0 = g_1(t)$ by $= 2g_1(t)$ can be 72-written as

Sales and

- 0 188-12 0 49-200
- © 2.8% = 20 69:5% = 20
- @ 3.FBX+10116/=280
- * 4 * 20 = 11
- © 5.8% = 585 8% = 285

W

D



Q

A

g) Shift

300

H

for(int j=0;j<=6;j++) printf(** *); for(int j=1;j<=6;j++) printf(*\n *);	
orintf("* "); for(int j=1:j<=6:j++)	
orintf("* "); for(int j=1:j<=6:j++)	
for(int j=1;j<=6;j++)	
orintf("\n "):	
for(int j=0;j<=16;j++);	
for(int j=1:j == 6:j++)	
for(int k=1;k<=6;k++)	B
for(int k=j;k<=6;k++)	
f (j == k)	
else	
100	for(int j=0;j<=16;j++); for(int j=1;j == 6;j++) for(int k=1;k<=6;k++) for(int k=j;k<=6;k++) if (j == k) else



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Question 17

Not yet answered Marked out of 5.00

P Rag question

Consider the following table having two columns. First column has line numbers and the second has different expressions. Write the line numbers of the relevant statements in correct order to obtain the following output

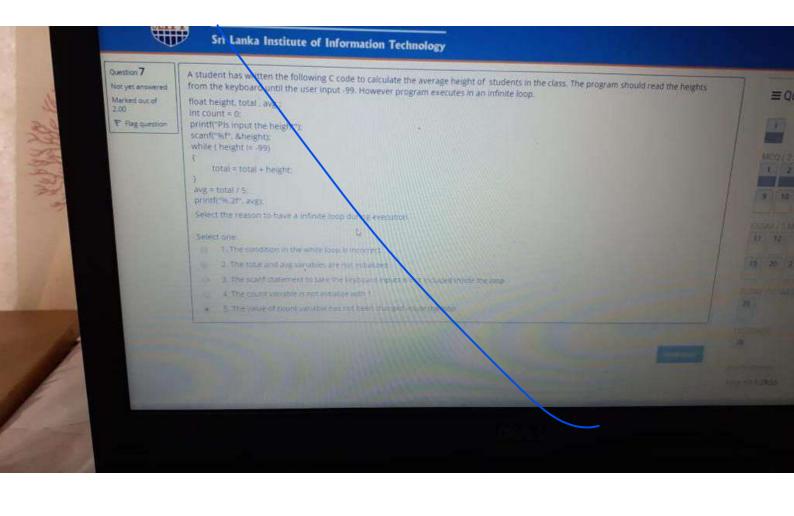
87

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%

No	Supportive components for program writing	
	(
2		
3	for(int j=0;j<=6;j++)	
4	printf("* "):	
5	for(int j=1;j<=6;j++)	
6	printf("\n ");	
7	for(int j=0;j==16;j++);	5 1 9 4 6 2
8	for(int j=1;j == 6;j++)	3 1 3 40 2
9	for(int.k=1;k<=6;k++)	
10	for(int k=j:k<=6;k++)	#include <stdio.h></stdio.h>
11	if () == k)	int main(vaid)
12	else	int main(void) {
		int i, j;
Output		for(i=1; i<=6; i++)
****		{ for(j=1; j<=6; j++)
****	•	{
*****	*	printf("* ");
		<pre>printf("\n");</pre>
****		}
	* # # # #	return 0; }





Suppose that 10 students face an aptitude test at SLIIT and the marks are stored in an array called marks. You are asked to complete the following C program to find the number of pass and fail students. The pass mark is the average mark of the students.

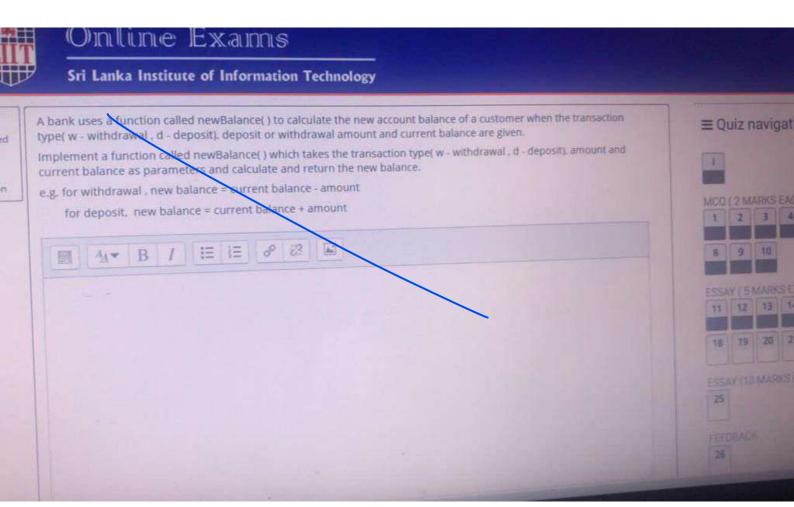
#include <stdio.h>
int main(void)

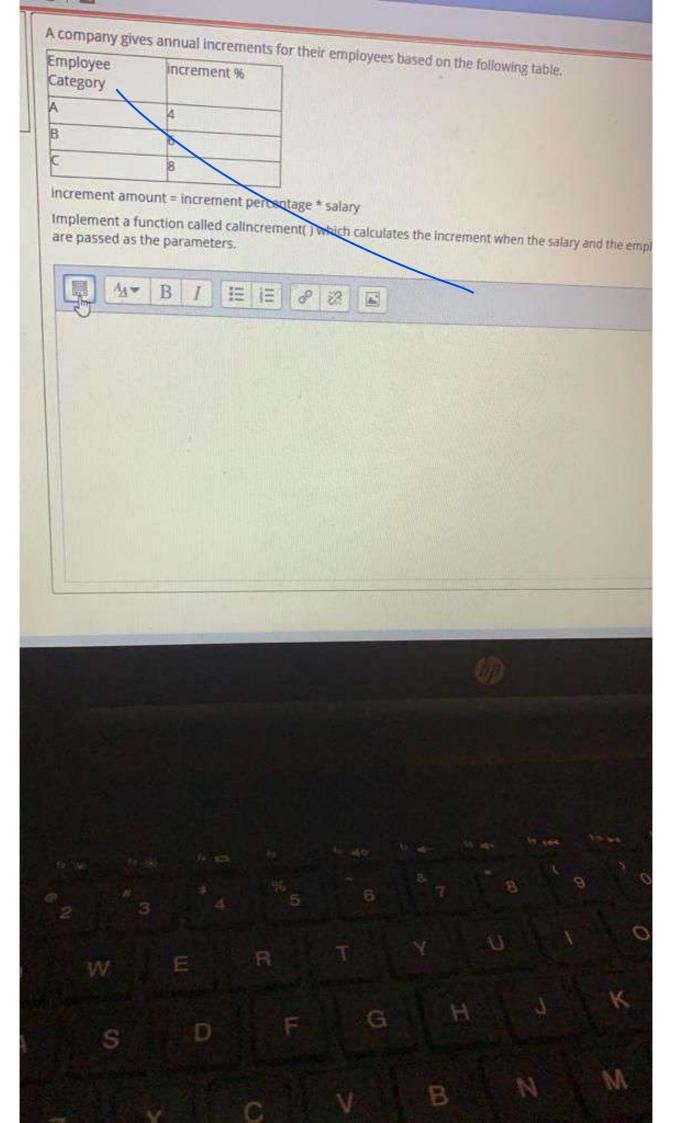
{
 float marks[10] = { 75.00, 45.00, 61.00, 91.00, 55.00, 43.00, 78.00, 56.00,95.00,12.00};

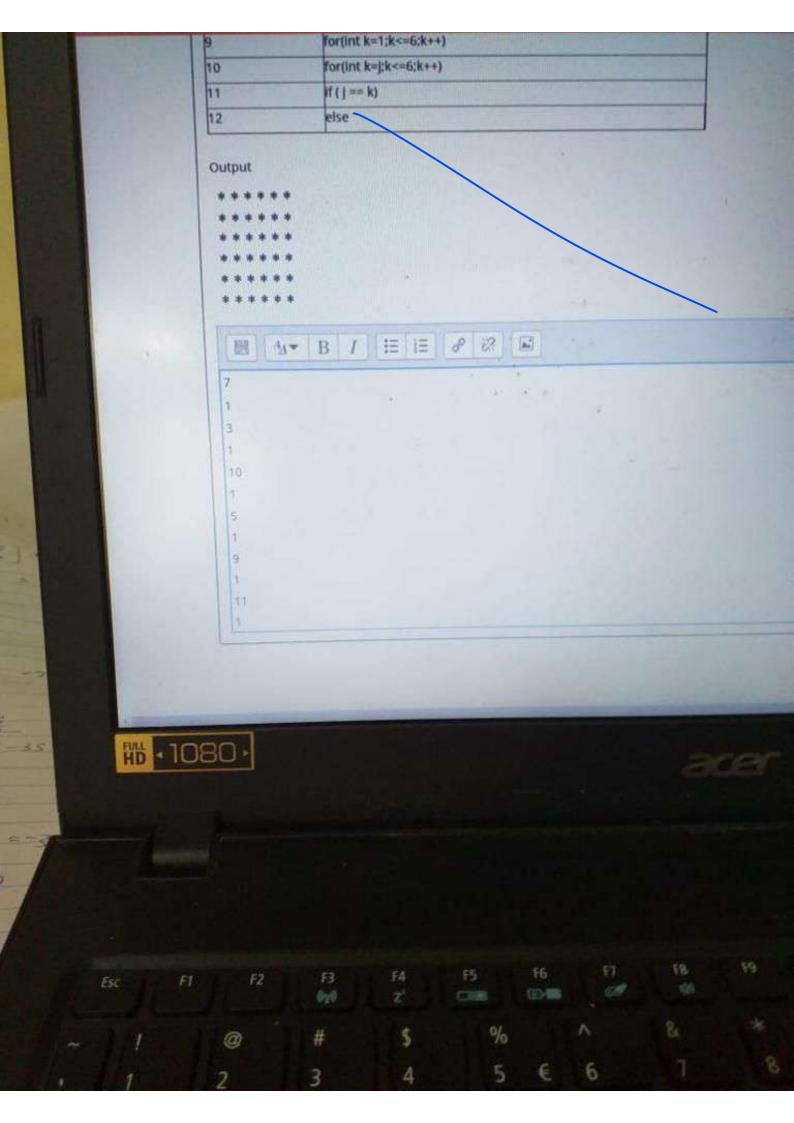
 return 0:
}

ed

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Question 1

Not yet answered

Marked out of 2.00

F Flag question

Select the correct statement/s about assert statement

Select one or more:

1. assert is used to test a function

2. assert gives an error message

-

assert statement always writes at the beginning of a program
 assert statements written only in the main program



5. assert can terminate a program





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Question 7

Not yet answered

Merked out of 200

P Rag question

A fashion store has 4 branches and asks 7 customers to rate their customer service in each branch. The rate value

6

1 - Very poor, 2 - Week, 3 - Satisfactory, 4 - Good, 5 - Excellent

4

The fashion store expects to gather these details within 2D array that already created.

Select the suitable array/s to store these details.

Select one or more:

1. int service[6][3]:

1

2. int service(7)[4]:

/

3. int service[4][7]:

4. int service(5)(V):



5. int service[7][5]:





Question 9

Not yet answered

Marked out of 2.00

P Rag question

The C statement "If ((x == 1) | | (y == 2)) ()" can be re-written as

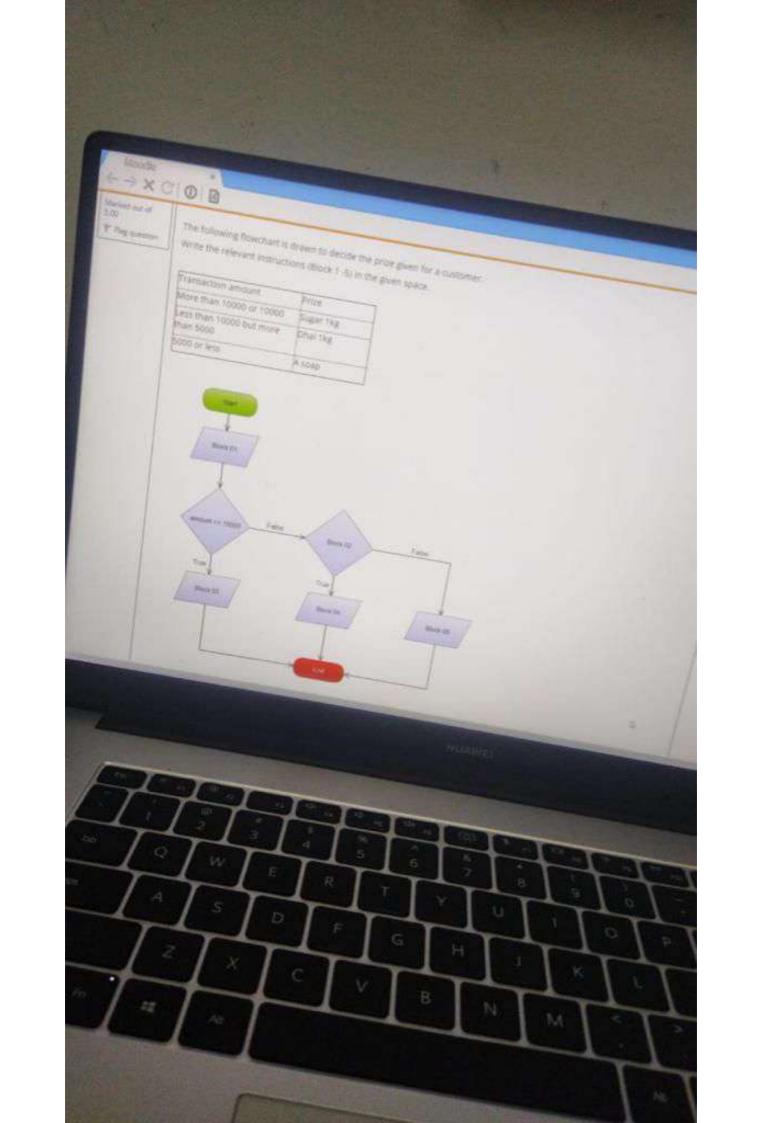
Select one:

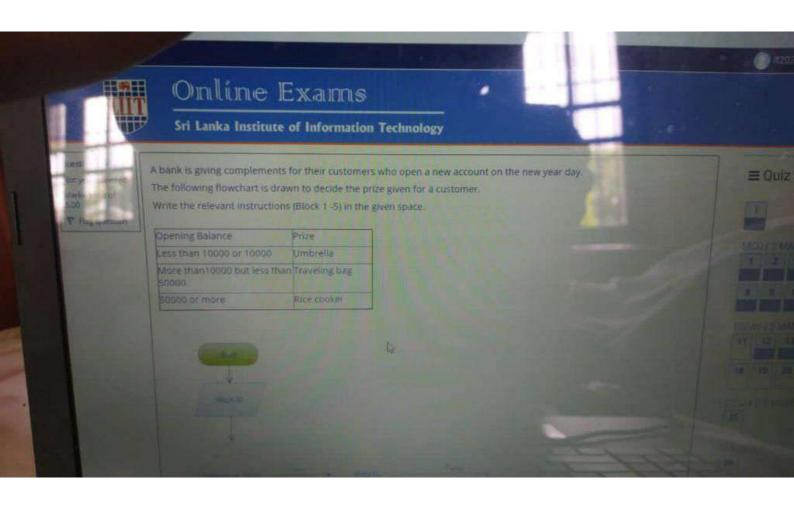
- (i) 1. if (x = 1); if (y = 2)) ()
- 2. If (x = 1)() else if (y = 2)()
- 3. If ((x = 1) | | (y = 2))()
- 4. If (x == 1)
 if (y == 2)()
- 6.5 if (x = 1)()if (y = 2)()

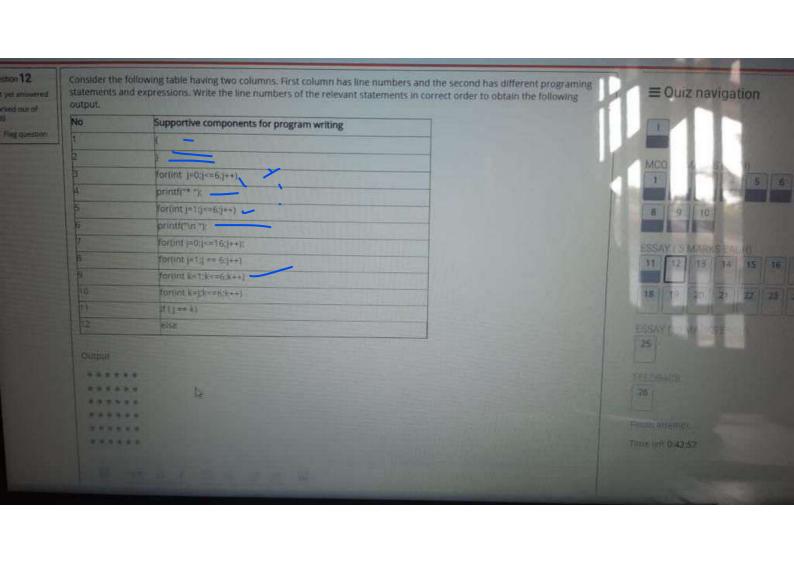


ps Lock









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Copy and modify the given program to apply the coding conventions.

A bank states their interest rate of savings accounts and fixed deposits for the balance amount of the bank account. If the bank account holder's agreement as senior citizens.

Account Type		Interest Rate
Savings Account (S)	Current amount <= 8000	4%
	Current amount > 8000	. 8%
Fixed Deposits (F)	Current amount <= 8000	10%
	Current amount > 8000	15%

User inputs the account type, balance amount of the account and the age of the program should calculate and display the corresponding interest amount should take user inputs until the user enters an age less than 60. (Not a seni-

#include <stdio.h>

int main()

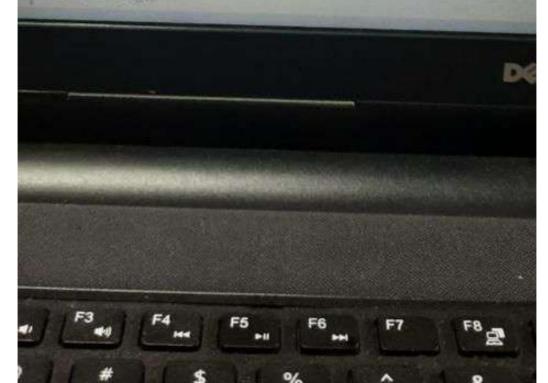
(float balance interestamount:

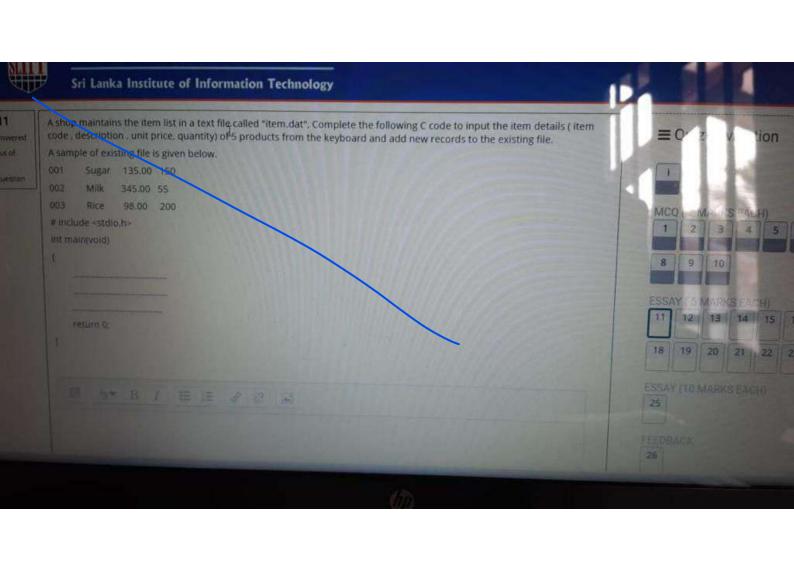
that type, answer:

mrage:

printforEnter age of the account holder [1]

scanfi No. &age





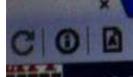
Complete the following c program to read a password from the key board and check whether it is a valid password. A password is considered as valid if it has more than 10 characters and if it has at least one upper case alphabetical character, one lower case alphabetical character, one lower case alphabetical

(E) -

Characters 'A'	Equivalent ASCII 65
T	90
'a'	97
'Y'	122
101	48
9	57
# Include <stdio.h></stdio.h>	
int main(void)	
(
	190
	1999
return 0:	

```
#include <string.h>
char pword[56];
int i, upper=0, lower=0, num=0, symbol=0;
if(strlen(pword) < 10)
{
    printf("invalid");
    break;</pre>
```

```
if(upper>=1 && lower >= 1 && num >= 1 &&
symbol>=1)
  printf("valid");
else printf("invalid");
```



Write two assert statements to test the following function.

int calculatePoints(float gurchaseAmount)

1

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on

if(purchaseAmount >= 5000)

return 500;

else if(puxchaseAmount >= 3000)

return 200;

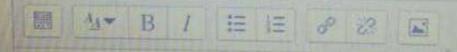
else if(purchaseAmount >= 1000)

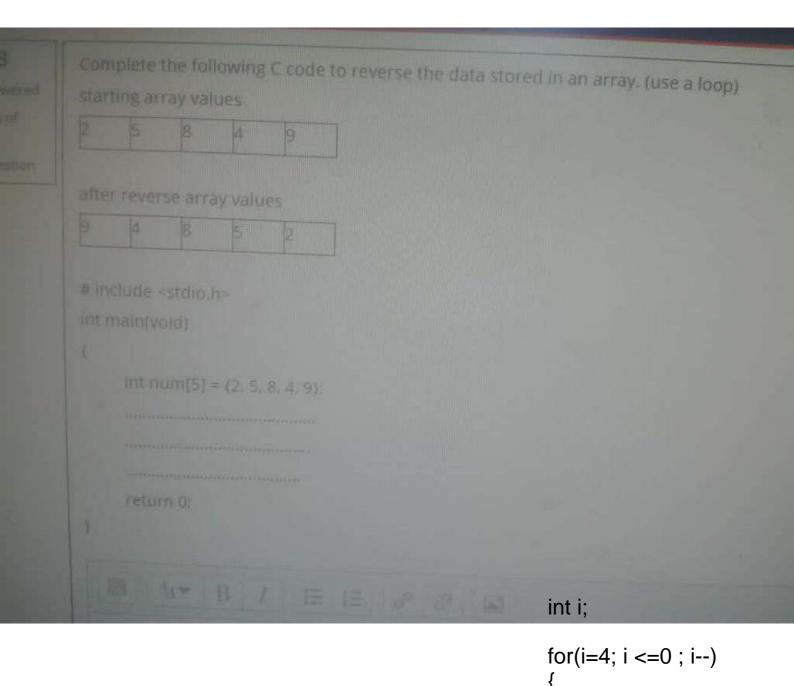
return 100:

else

return 25:

}





printf("%d ", num[i]);



A bank states their interest rate of savings accounts and fixed deposits for senior cateers. The interest rate depends on the balance annuals of the bank account, if the bank account holder's age is greater than or equals to 40 years, they are considered as senior cateers.

Account Type	(1)	oberest Rate
Savings Account (S)	Current amount <= 8000 S	4%
	Current amount > 8000	8%
Fixed Deposits (F)	Cutrent amount <= 8000	10%
100000	Current amount - 8000	15%

User inputs the account type, balance amount of the account and the age of the account holder through the keyboard. The program should calculate and display the corresponding interest amount payed to the account holder. The program should take user inputs uots the user enters an age less than 60 chot a serior citizen)

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int maint

(Boat balance interestAmount)

shar type, answer:

intage:

printly Enter age of the account holder (1).

scanfilled", Exget.

whilesage=>60H

printfl"Enter account type "1



Write two assert statements to test the following function. int calculatePoints(float purchaseAmount) { if(purchaseAmount >= 5000) return 500; else if(purchaseAmount >= 3000) return 200; else if(purchaseAmount >= 1000) return 100; else return 25; }



Sri Lanka Institute of Information Technology

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Flag question

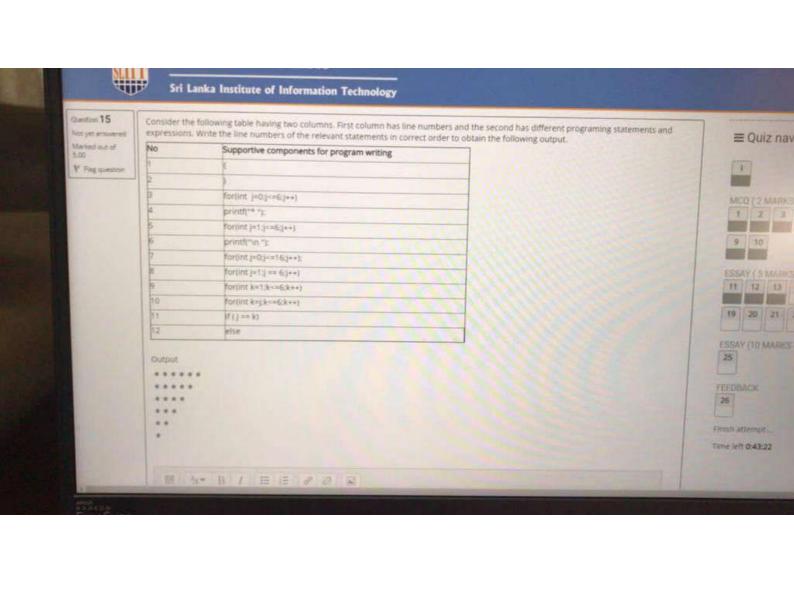
```
As student has written the following program to input the radius of a circle from the keyboard and calculate the display the area of the
circle. However the program does not generate the required output. Identify four bugs in the following program and re-write the program
with out errors.
#include <stdio.h>
int main()
 float r. area:
 printf("Enter radius of a circle: ");
 scanf("%f\n", r);
 area = 22 / 7.0 * r * r:
 printf("Area = %.2d", &area):
 return 0:
              B / H H B & & E
                                             #include <stdio.h>
                                             int main()
                                                float r, area;
                                               printf("Enter radius of a circle : ");
```

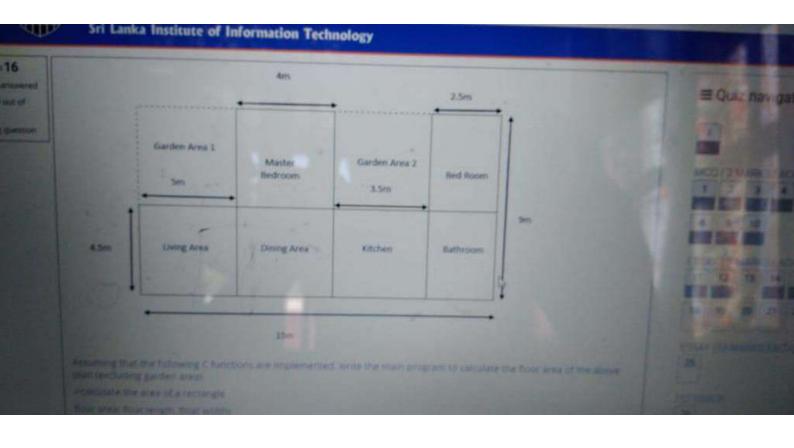
scanf("%f", &r);

return 0;

area = (22/7.0) *r*r;

printf("Area = %,2f", area);





Complete the following C program to solve the given expression. Use Standard C math library function.

$$C = \sqrt{a^2 + b^2 - 2ab \cos \emptyset}$$

Hint : if angle is 90 degrees, cosine will be cos (90 * 3.141592/180)

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#include <stdio.h> # include <math.h>

int main()

float a = 3, b = 4, c;

float angle = 90 * 3,141592/180;

nout dright 20

return 0;

c = sqrt (pow(a,2) + pow(b,2) - 2*a*b*cos(angle));