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Q no 1

Write the data Types of the Value Values??

“Introduction of IDE and basic programming constructs”

Ans: Given Data Type is String

- 3×10^8

Ans: Given Data Data Type is (int)

- 30000000

Ans: Given Data Type is (int)

- 7.000000000000005

Ans: Given Data Type is (Double)

Q no 2

```
qno9.c  Q no 1.c
1  #include<stdio.h>
2  int main ()
3  {
4      int Question_Num=3000000000;
5      printf("The integer is %d",Question_Num);
6      printf("\n");
7      printf("Given Num Can not be Printed Beccause integer data type can not accept more than +2147483647");
8  }
```

C:\Users\khalidMalik\Desktop\Q no 1.exe

```
The integer is -1294967296
Given Num Can not be Printed Beccause integer data type can not accept more than +2147483647
-----
Process exited after 0.05131 seconds with return value 92
Press any key to continue . . .
```

Activate Windows
Go to Settings to activate Windows

Q no 3

Q3.c

```
1 #include<stdio.h>
2 int main(){
3     int a,b,c;
4
5     printf("Enter the value Of a");
6     printf("\n");
7     scanf("%d",&a);
8     printf("Enter the Value of b");
9     printf("\n");
10
11     scanf("%d",&b);
12
13     c=a;
14     a=b;
15     b=c;
16     printf("\nThe Value Of a after is %d",a);
17     printf("\nthe value of b after is %d",b);
18 }
```

```
Enter the value Of a
4
Enter the Value of b
5

The Value Of a after is 5
the value of b after is 4
-----
Process exited after 8.222 seconds with return value 26
Press any key to continue . . .
```

Q no 4

```
1  #include<stdio.h>
2  int main(){
3      int Tax_Rate,Salary,c,d;
4      printf("Costumer Salary");
5      printf("\n");
6      scanf("%d",&Salary);
7      printf("Tax Rate");
8      printf("\n");
9      scanf("%d",&Tax_Rate);
10     c = (Salary/100)*Tax_Rate;
11     printf("\n");
12     d = Salary - c;
13     printf("\n");
14     printf("Tax Costumer need to pay: %d",c);
15     printf("\n");
16     printf("Current Salary Of Costumer : %d",d);
17 }
```

```
Costumer Salary
50000
Tax Rate
25

Tax Costumer need to pay: 12500
Current Salary Of Costumer : 37500
-----
Process exited after 13.4 seconds with return value 34
Press any key to continue . . .
```

Qno 5

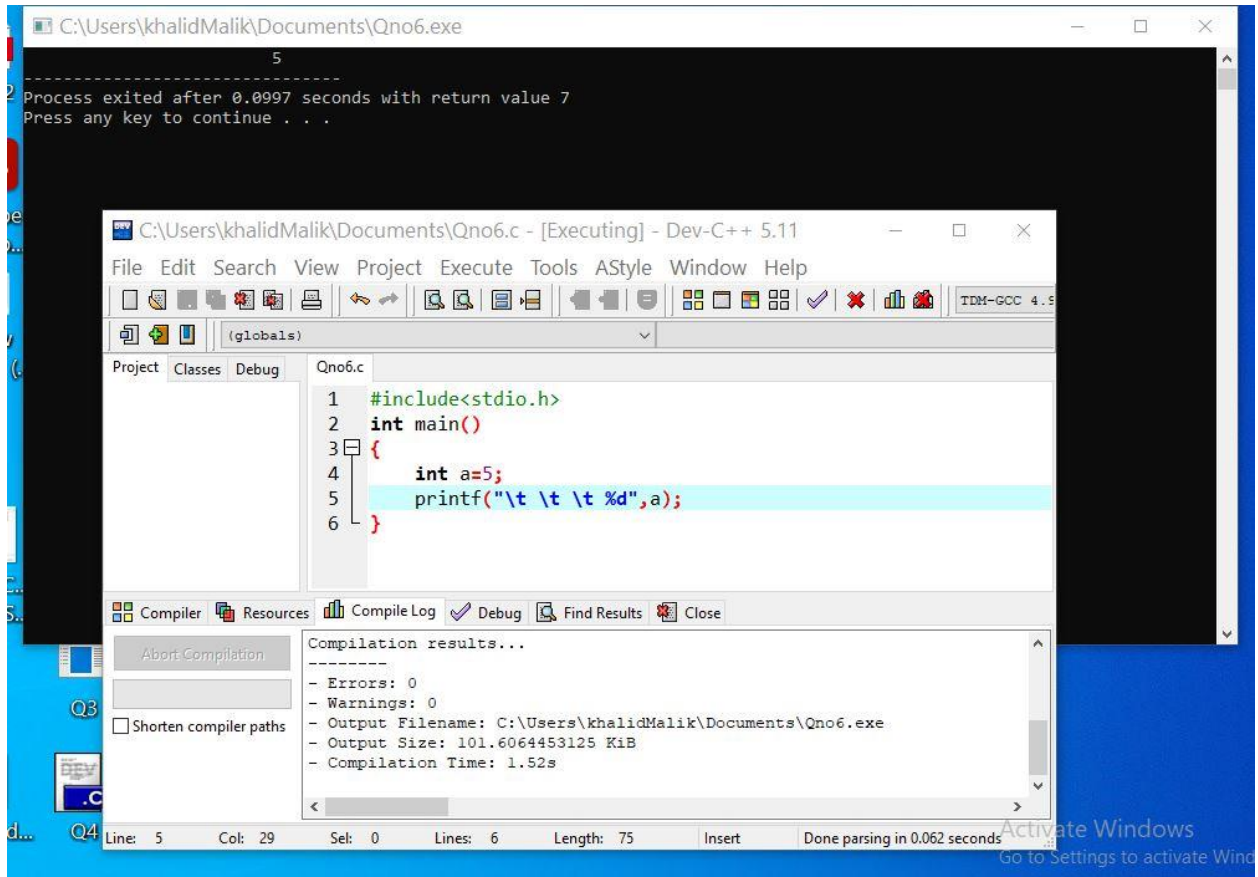
```
Q5.c
1  #include<stdio.h>
2  int main()
3  {
4      int a,b,c,d,e,f;
5      printf("Enter The Speed Of in First Hour (in Mile/hour)");
6      printf("\n");
7      scanf("%d",&a);
8      printf("Enter The Speed Of in Second Hour (in Mile/hour)");
9      printf("\n");
10     scanf("%d",&b);
11     printf("Enter The Speed Of in Third Hour (in Mile/hour)");
12     printf("\n");
13     scanf("%d",&c);
14     printf("Enter The Speed Of in Fourth Hour (in Mile/hour)");
15     printf("\n");
16     scanf("%d",&d);
17     printf("Enter The Speed Of in Fifth Hour (in Mile/hour)");
18     printf("\n");
19     scanf("%d",&e);
20     f = (a + b + c + d + e)/5;
21     printf("\n");
22     printf("The Average Speed Of Car in Five Hours : %d",f);
23 }
```

C:\Users\Kriti\OneDrive\Desktop\Q5.exe

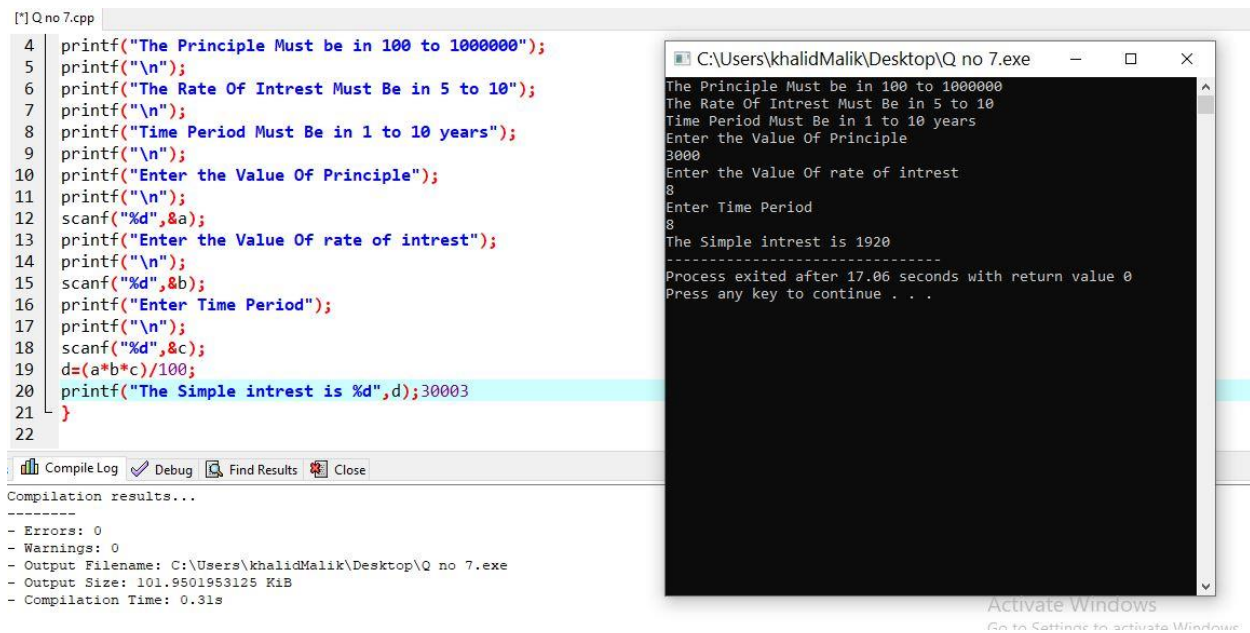
```
Enter The Speed Of in First Hour (in Mile/hour)
89
Enter The Speed Of in Second Hour (in Mile/hour)
7
Enter The Speed Of in Third Hour (in Mile/hour)
56
Enter The Speed Of in Fourth Hour (in Mile/hour)
87
Enter The Speed Of in Fifth Hour (in Mile/hour)
32

The Average Speed Of Car in Five Hours : 54
-----
Process exited after 17.22 seconds with return value 43
Press any key to continue . . .
```

Q no 6



Q no7



The image shows a C++ IDE with two windows. The left window displays the source code for 'Q no 7.cpp', and the right window shows the execution output of 'C:\Users\khalidMalik\Desktop\Q no 7.exe'.

Source Code (Q no 7.cpp):

```
4  printf("The Principle Must be in 100 to 1000000");
5  printf("\n");
6  printf("The Rate Of Intrest Must Be in 5 to 10");
7  printf("\n");
8  printf("Time Period Must Be in 1 to 10 years");
9  printf("\n");
10 printf("Enter the Value Of Principle");
11 printf("\n");
12 scanf("%d",&a);
13 printf("Enter the Value Of rate of intrest");
14 printf("\n");
15 scanf("%d",&b);
16 printf("Enter Time Period");
17 printf("\n");
18 scanf("%d",&c);
19 d=(a*b*c)/100;
20 printf("The Simple intrest is %d",d);30003
21 }
22
```

Compilation results...

```
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\khalidMalik\Desktop\Q no 7.exe
- Output Size: 101.9501953125 KiB
- Compilation Time: 0.31s
```

Execution Output (C:\Users\khalidMalik\Desktop\Q no 7.exe):

```
The Principle Must be in 100 to 1000000
The Rate Of Intrest Must Be in 5 to 10
Time Period Must Be in 1 to 10 years
Enter the Value Of Principle
3000
Enter the Value Of rate of intrest
8
Enter Time Period
8
The Simple intrest is 1920
-----
Process exited after 17.06 seconds with return value 0
Press any key to continue . . .
```

Activate Windows
Go to Settings to activate Windows

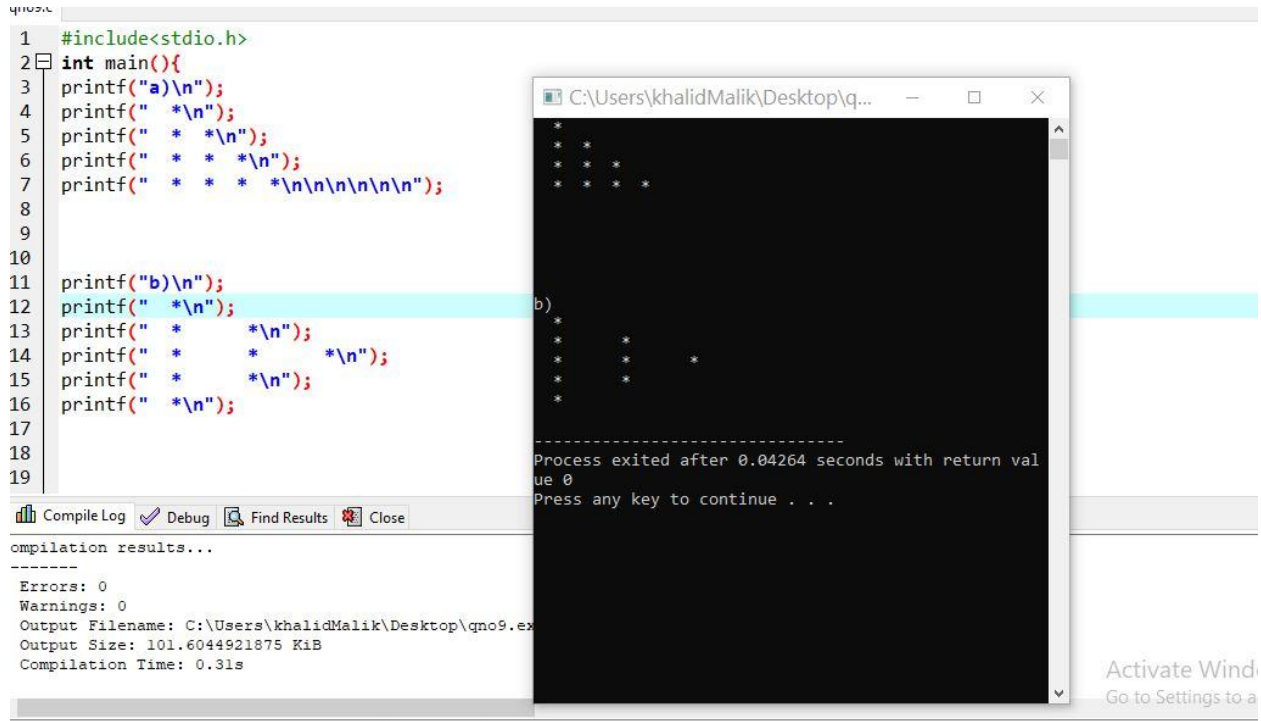
Q no 8

```
1  #include<stdio.h>
2
3  int main()
4  {
5      int i=1;
6      for(i=1;i<=5;i++)
7      {
8          sleep(1);
9          printf("\a");
10         printf("%d",i);
11         printf("\n");
12     }
13 }
14
15
```

C:\Users\khalidMalik\Desktop\Lab 3 2\Qn0 8.exe

```
1
2
3
4
5
-----
Process exited after 5.1 seconds with return value 10
Press any key to continue . . .
```

Q no 9



The image shows a C program in a code editor and its execution output in a console window. The program uses `printf` to print two patterns of asterisks. The first pattern, labeled 'a', is a 4x4 grid. The second pattern, labeled 'b', is a 4x4 grid with a diagonal of asterisks. The console output shows the execution of the program, including the patterns and the exit message.

```
1 #include<stdio.h>
2 int main(){
3     printf("a\n");
4     printf(" * \n");
5     printf(" * * \n");
6     printf(" * * * \n");
7     printf(" * * * * \n\n\n\n\n");
8
9
10
11     printf("b\n");
12     printf(" * \n");
13     printf(" * * \n");
14     printf(" * * * \n");
15     printf(" * * * * \n");
16     printf(" * \n");
17
18
19
```

Compilation results...

Errors: 0
Warnings: 0
Output Filename: C:\Users\khalidMalik\Desktop\qno9.exe
Output Size: 101.6044921875 KiB
Compilation Time: 0.31s

Process exited after 0.04264 seconds with return value 0
Press any key to continue . . .