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REG. NO. -20223035

GROUP – A1

QUESTION-1

```
#include<stdio.h>

int main(){

    printf("To know whether you are eligible for casting vote or not\n");
    printf("Amit Kumar\n");
    printf("Date-19/01/2023\n");

    int age;

    printf("Enter your age\n");
    scanf("%d",&age);
    if(age==18 || age>=18){
        printf("You are eligible for casting your vote\n");
    }
    else{
        printf("You are not eligible for casting your vote\n");
    }
    return 0;
}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc question1.c -o question1 } ; if ($?) { .\question1 }
Enter your age
17
You are not eligible for casting your vote
PS D:\Assignment6> cd "d:\Assignment6\" ; if ($?) { gcc question1.c -o question1 } ; if ($?) { .\question1 }
To know whether you are eligible for casting vote or not
Amit Kumar
Date-19/01/2023
Enter your age
75
You are eligible for casting your vote
```

QUESTION-2

```
#include<stdio.h>

int main(){

    int year;

    printf("To find out whether the year is leap year or not\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    printf("Enter the year which you want to check for leap year\n");

    scanf("%d",&year);

    if(year%4==0){

        if(year%100==0 && year%400==0){

            printf("Entered year is a leap year");

        }

        if(year%100==0 && year%400!=0){

            printf("Entered year is not a leap year");

        }

        if(year%100!=0){

            printf("Entered year is a leap year");

        }

    }

    else{

        printf("Entered year is not a leap year");

    }

    return 0;

}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To find out whether the year is leap year or not
Amit Kumar
Date-19/01/2023
Enter the year which you want to check for leap year
100
Entered year is not a leap year
```

QUESTION-3

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

```
int main(){  
    printf("To find the number is negative or positive or 0\n");  
    printf("Amit Kumar\n");  
    printf("Date-19/01/2023\n");  
    int m,n;  
    printf("Enter an integer value\n");  
    scanf("%d",&m);  
    if(m>0){  
        n=1;  
        printf("The value of n is %d",n);  
    }  
    else if(m<0){  
        n=-1;  
        printf("The value of n is %d",n);  
    }  
    else{  
        n=0;  
        printf("The value of n is %d",n);  
    }  
    return 0;  
}
```

OUTPUT

```
PS D:\Assignment6> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }  
To find the number is negative or positive or 0  
Amit Kumar  
Date-19/01/2023  
Enter an integer value  
-5  
The value of n is -1
```

QUESTION-4

```
#include<stdio.h>

int main(){

    printf("To find the grade obtained by a student based on marks obtained\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    int marks;

    printf("Enter your marks\n");

    scanf("%d",&marks);

    if(marks>=90){

        printf("Your grade is A+");

    }

    else if(marks>=80){

        printf("Your grade is A");

    }

    else if(marks>=70){

        printf("Your grade is B+");

    }

    else if(marks>=60){

        printf("Your grade is B");

    }

    else if(marks>=50){

        printf("Your grade is C");

    }

    else{

        printf("Your grade is F");

    }

    return 0;}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To find the grade obtained by a student based on marks obtained
Amit Kumar
Date-19/01/2023
Enter your marks
75
Your grade is B+ 
```

QUESTION-5

```
#include<stdio.h>

int main(){

    printf("To find out whether triangle is possible or not!\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    float angleA,angleB,angleC;

    printf("Enter the values of three angles of a triangle in degrees\n");

    scanf("%f %f %f",&angleA,&angleB,&angleC);

    if(angleA+angleB+angleC==180){

        printf("The required triangle is valid");

    }

    else{

        printf("The required triangle is not valid");

    }

    return 0;

}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To find out whether triangle is possible or not!
Amit Kumar
Date-19/01/2023
Enter the values of three angles of a triangle in degrees
65
85
30
The required triangle is valid
```

QUESTION-6

```
#include<stdio.h>

int main(){

    printf("To compare two integers\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    int num1,num2;

    printf("Enter two numbers\n");

    scanf("%d %d",&num1,&num2);

    if(num1>num2){

        printf("%d is not equal to %d\n",num1,num2);

        printf("%d is greater than %d\n",num1,num2);

        printf("%d is greater than or equal to %d\n",num1,num2);

    }

    else if(num1<num2){

        printf("%d is not equal to %d\n",num1,num2);

        printf("%d is less than %d\n",num1,num2);

        printf("%d is less than or equal to %d\n",num1,num2);

    }

    else {

        printf("%d is equal to %d\n",num1,num2); }

    return 0;

}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To compare two integers
Amit Kumar
Date-19/01/2023
Enter two numbers
45 75
45 is not equal to 75
45 is less than 75
45 is less than or equal to 75
```

QUESTION-7

```
#include<stdio.h>

int main(){

    printf("To compare area and perimeter of a rectangle\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    float length,breadth;

    printf("Enter the length of rectangle\n");

    scanf("%f",&length);

    printf("Enter the breadth of rectangle\n");

    scanf("%f",&breadth);

    float area = length*breadth;

    float perimeter=2*length + 2*breadth;

    if(area>perimeter){

        printf("The area of the rectangle is greater than its perimeter");

    }

    else if(area<perimeter){

        printf("The area of the rectangle is less than its perimter");

    }

    else{

        printf("The area of rectangle is equal to its perimter");

    }

    return 0;

}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To compare area and perimeter of a rectangle
Amit Kumar
Date-19/01/2023
Enter the length of rectangle
6.5
Enter the breadth of rectangle
73.8
The area of the rectangle is greater than its perimeter
```

QUESTION-8

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

```
int main(){

    printf("To compare three integers\n");
    printf("Amit Kumar\n");
    printf("Date-19/01/2023\n");

    int A,B,C;

    printf("Enter the value of A\n");
    scanf("%d",&A);

    printf("Enter the value of B\n");
    scanf("%d",&B);

    printf("Enter the value of C\n");
    scanf("%d",&C);


    if (A > B && A > C) {
        printf("A is the largest number\n");
    }

    else if (B > A && B > C) {
        printf("B is the largest number\n");
    }

    else if (C > A && C > B) {
        printf("C is the largest number\n");
    }

    else if (A == B && B == C) {
        printf("All numbers are equal\n");
    }

    else if (A == B && A > C) {
        printf("A and B are equal and greater than C\n");
    }
}
```



```

    }

    else if (A == C && A > B) {

        printf("A and C are equal and greater than B\n");

    }

    else if (B == C && B > A) {

        printf("B and C are equal and greater than A\n");

    }


    return 0;

}

```

OUTPUT

1)

```

> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To compare three integers
Amit Kumar
Date-19/01/2023
Enter the value of A
99
Enter the value of B
65
Enter the value of C
45
A is the largest number

```

2)

```

Enter the value of A
78
Enter the value of B
99
Enter the value of C
45
B is the largest number

```

3)

```

Enter the value of A
78
Enter the value of B
45
Enter the value of C
99
C is the largest number

```

4)

```

Enter the value of A
99
Enter the value of B
99
Enter the value of C
99
All numbers are equal

```

5)

```
Enter the value of A
99
Enter the value of B
99
Enter the value of C
45
A and B are equal and greater than C
```

6)

```
Enter the value of A
99
Enter the value of B
45
Enter the value of C
99
A and C are equal and greater than B
```

7)

```
Enter the value of A
78
Enter the value of B
99
Enter the value of C
99
B and C are equal and greater than A
```

QUESTION-9

```
#include<stdio.h>

int main() {

    printf("To find the profit or loss on selling an item\n");

    printf("Amit Kumar\n");

    printf("Date-19/01/2023\n");

    int costPrice, sellingPrice;

    printf("Enter cost price: ");

    scanf("%d", &costPrice);

    printf("Enter selling price: ");

    scanf("%d", &sellingPrice);

    if (sellingPrice > costPrice) {

        int profit = sellingPrice - costPrice;

        printf("Profit made: %d\n", profit);

    }

    else if (sellingPrice < costPrice) {

        int loss = costPrice - sellingPrice;

        printf("Loss incurred: %d\n", loss);

    }

    else {

        printf("No profit or loss.\n");

    }

    return 0;

}
```

OUTPUT

```
> cd "d:\Assignment6\" ; if ($?) { gcc question9.c -o question9 } ; if ($?) { .\question
9 }
To find the profit or loss on selling an item
Amit Kumar
Date-19/01/2023
Enter cost price: 78
Enter selling price: 99
Profit made: 21
```

QUESTION-10

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

```
int main(){
```

```
    printf("To find the younger one among three person\n");
```

```
    printf("Amit Kumar\n");
```

```
    printf("Date-19/01/2023\n");
```

```
    int r,s,a;
```

```
    printf("enter the age of ram:");
```

```
    scanf("%d",&r);
```

```
    printf("enter the age of shyam:");
```

```
    scanf("%d",&s);
```

```
    printf("enter the age of ajay:");
```

```
    scanf("%d",&a);
```

```
    if(r<=s && r<=a){
```

```
        if(r<s && r<a){
```

```
            printf("ram is younger.");
```

```
        }
```

```
        else if(r==s && r!=a){
```

```
            printf("ram and shyam are younger");
```

```
        }
```

```
        else if(r==a && r!=s){
```

```
            printf("ram and ajay are younger");
```

```
        }
```

```
        else if(r==s && r==a){
```

```
            printf("all have same ages");
```

```
        }
```

```
    }
```

```

if(s<=r && s<=a){
    if(s<r && s<a){
        printf("shyam is younger.");
    }
    else if (s==a && s!=r){
        printf("shyam and ajay are younger");
    }
}
if(a<s && a<r){
    printf("ajay is younger");
}

return 0;
}

```

OUTPUT

```

> cd "d:\Assignment6\" ; if ($?) { gcc tempCodeRunnerFile.c -o tempCodeRunnerFile } ; if
($?) { .\tempCodeRunnerFile }
To find the younger one among three person
Amit Kumar
Date-19/01/2023
enter the age of ram:45
enter the age of shyam:78
enter the age of ajay:12
ajay is younger

```
