

Assignment 3

①

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

```
int main()
```

{

```
int a;
```

```
printf("Enter a number");
```

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

```
if(a > 0)
```

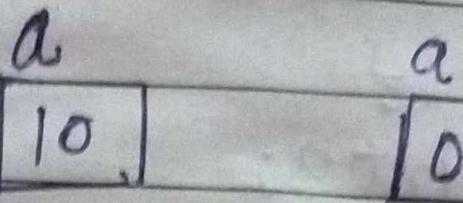
```
    printf("%d is positive", a);
```

```
else
```

```
    printf("%d is non-positive", a);
```

```
return 0;
```

y



10 is positive

0 is non-positive

② #include <stdio.h>

```
int main()
```

{

```
int a;
```

```
printf("Enter a number");
```

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

```
if(a % 5)
```

```
    printf("%d is not divisible by 5", a);
```

```
else
```

```
    printf("%d is divisible by 5", a);
```

y

③ #include <stdio.h>

int main()

{

int a;

printf("Enter a number.");

scanf("%d", &a);

if (a % 2)

printf("%d is odd", a);

else

printf("%d is even", a);

return 0;

}

④ #include <stdio.h>

int main()

{

int a;

printf("Enter a number.");

scanf("%d", &a);

if (a / 2 * 2 == a)

printf("%d is even", a);

else

printf("%d is odd", a);

(5) #include <stdio.h>

int main()

{

int a, b, count = 0;

printf("Enter a number.");

scanf("%d", &a);

b = a;

b = b / 10;

if (b)

{

count++;

b = b / 10;

if (b)

{

count++;

b = b / 10;

if

if

if (count + 1 == 3)

printf("%d is 3 digit number", a);

else

printf("%d is not a 3 digit number", a);

if

a	b
2	4

⑥ #include <stdio.h>

```
int main()
{
```

```
    int a, b;
```

```
    printf("Enter 2 numbers");
```

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

```
    if (a > b)
```

```
        printf("%d is greater among 2", a);
```

```
    else
```

```
        printf("%d is greater among 2", b);
```

```
    return 0;
```

```
}
```

$a > b$

4 is greater among 2

⑦ #include <stdio.h>

```
int main()
```

```
{
```

```
    int a, b, c, d;
```

```
    printf("Enter coefficients of  $x^2$ , x and constant");
```

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

```
    d = b * b - 4 * a * c;
```

```
    if (d > 0)
```

```
        printf("Roots are Real and Distinct");
```

```
    else if (d == 0)
```

```
        printf("Roots are Real and Equal");
```

```
- else
```

```
        printf("Roots are Imaginary");
```

```
return 0;
```

{

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

{

int year;
printf("Enter year");
scanf("%d", &year);

if (year % 100)

{

if (year % 4)

printf("Non leap year");

else

printf("leap year");

}

else

{

if (year % 400)

printf("Non leap year");

else

printf("Leap year");

}

```
return 0;
```

}

Q) #include <stdio.h>

int main()

{

 int a, b, c;

 printf("Enter 3 numbers");

 scanf("%d%d%d", &a, &b, &c);

 if (a > b)

{

 if (a > c)

 printf("%d is greatest among 3", a);

 else

{

 if (b > c)

 printf("%d is greatest among 3", b);

 else

 printf("%d is greatest among 3", c);

}

 return 0;

}

a b c

10

120

30

⑩ #include <stdio.h>

```
int main()
{
```

~~int float~~

```
float cost price, selling price, profit, loss,  
printf("Enter cost price and selling price");  
scanf("%f %f", &cost price, &selling price);
```

```
if(cost price < selling price)
```

{

profit = selling price - cost price;

```
printf("The profit percentage is %", profit/cost price  
*100);
```

}

else if (cost price > selling price)

{

loss = cost price - selling price;

```
printf("The loss percentage is %", loss/cost price *100);
```

}

else

```
printf("No profit No loss");
```

return 0;

3

(11) #include <stdio.h>

int main()

{

float a, b, c, d, e, average;
 printf("Enter marks of 5 subjects");
 scanf("%f %f %f %f %f", &a, &b, &c, &d, &e);
 average = (a+b+c+d+e)/5;

if(average >= 33) if(average >= 33.05f)

printf("Pass");

else

printf("Fail");

return 0;

}

(12) #include <stdio.h>

int main()

{

char m;

printf("Enter an character");

scanf("%c", &m);

if(c > m > 'A' && m < 'Z')

printf("Uppercase");

else

printf("Lowercase");

return 0;

}

(13) #include <stdio.h>
int main()
{
 int a;
 printf("Enter a number");
 scanf("%d", &a);
 if (a % 10 && a % 3)
 printf("%d is not divisible by 3 and 2", a);
 else
 printf("%d is divisible by 3 and 2", a);
return 0;
}

(14) #include <stdio.h>
int main()
{
 int a;
 printf("Enter a number");
 scanf("%d", &a);
 if (a % 3 || a % 7)
 {
 if (a % 3)
 printf("Divisible by 7");
 else
 printf("Divisible by 3");
 }
 else
 printf("Divisible by both 7 and 3");
}

a	[12]
12 / 3	11 2 - 7
0 1 5	
a	9
12 1	1 3 5
2 1 0	

⑤ #include <stdio.h>

int main()

{

int a;

printf("Enter a number");

scanf("%d", &a);

if (a > 0)

printf("Number is positive");

else if (a < 0)

printf("Number is negative");

else

printf("Number is zero");

return 0;

}

⑥ #include <stdio.h>

int main()

{

char a;

printf("Enter a character");

scanf("%c", &a);

if (a >= 'A' && a <= 'Z')

printf("Upper Case");

else if (a > 'a' && a <= 'z')

printf("Lower Case");

```
else if (a > '0' && a <= '9')
    printf("Digit");
```

else

```
    printf("Special Character");
return 0;
```

}

(17) #include < stdio.h >

```
int main()
{
```

```
    int a, b, c;
```

```
    printf("Enter length of the sides of a triangle ");
    scanf("%d%d%d", &a, &b, &c);
    printf("\n a=%d b=%d c=%d", a, b, c);
```

if (a+b>c)

```
    printf("\n Triangle is valid");
```

else if (a+c>b)

```
    printf("\n Triangle is valid");
```

else if (b+c>a)

```
    printf("\n Triangle is valid");
```

else

```
    printf("\n Triangle is not valid");
```

return 0;

}

(18) #include <stdio.h>

int main()

{

 int number;

 printf("Enter a month number.");

 scanf("%d", &number);

 if (number == 1 || number == 3 || number == 5 ||

 number == 7 || number == 8 || number == 10 ||

 number == 12)

 printf("%d month %s", number,

^{has}

 "31 days", number);

 else if (number == 2)

 printf("%d month has 28 days if its non leap
 year or has 29 days if its leap year.", number);

 else

 printf("%d month has 30 days", number);

 return 0;

}