

Q Write C programme for the following
(using loops).

1 Print 1st 10 natural nos.

```
#include <stdio.h>
void main()
{
    int i;
    for (i=1; i<=10; i++)
    {
        printf ("%d", i);
    }
}
```

2) Print 1st 10 odd natural nos.

```
#include <stdio.h>
void main()
{
    int i;
    for (i=0; i<=10; i++)
    {
    }
```

```
i = i + 1;  
printf("%d", i);  
}
```

3) Point 1st 10 even nos.

```
#include <stdio.h>  
void main()  
{  
    int i;  
    for (i = 1; i <= 10; i++)  
    {  
        i = i + 1;  
        printf("%d", i);  
    }  
}
```

4) Point 1st n natural nos.

```
#include <stdio.h>  
void main()  
{  
    int i, n;  
    printf("Enter the number");
```

```
scanf ("%d", &n);
for (i=1; i<=n; i++)
{
    printf ("%d", i);
}
```

Ques Point 1st n odd nos.

```
#include <stdio.h>
void main()
{
    int i, n;
    printf ("Enter the number");
    scanf ("%d", &n);
    for (i=0; i<=n; i++)
    {
        if (i % 2 != 0)
            printf ("%d", i);
    }
}
```

Q6 Point 1st n even nos.

```
#include <stdio.h>
void main()
{
    int i, n;
    printf("Enter the number");
    scanf("%d", &n);
    for (i=0; i<=n; i++)
    {
        if (i%2==0)
            printf("%d", i);
    }
}
```

Q7 Print sum of n natural nos.

```
#include <stdio.h>
void main()
{
    int i, n, sum=0;
    printf("Enter the number");
    scanf("%d", &n);
    for (i=1; i<=n; i++)
    {
        sum = sum + i;
    }
    printf("Sum = %d", sum);
}
```

```
sum = sum + i;  
printf("%d", sum);  
}
```

Q8 Print sum of 1st n odd nos.

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

```
Void main ()
```

```
int i, n, sum = 0;
```

```
printf("Enter the value of n ");
```

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

```
for (i=0; i<=n; i++)
```

```
i = i + 1;
```

Sum = Sum + i;

~~Received~~
~~Sometimes~~

~~Required~~, printf("%d", sum);

```
}
```

Q9 Sum of first n even number.

```
#include <stdio.h>
void main()
{
    int i, n, sum=0;
    printf("Enter the number");
    scanf("%d", &n);
    for (i=1, i<=n, i++)
    {
        i = i+1;
        sum = sum + i;
    }
    printf("%d", sum);
}
```

Q10 Factorial of a number.

```
#include <stdio.h>
void main()
{
    int i, n;
    printf("Enter a number");
    scanf("%d", &n);
```

```
for(i=1; i<=n; i++)
```

```
{ f = f * i;
```

```
point f ("%d", f);
```

Q11 Print name S times.

```
#include <stdlib.h>
```

```
void main()
```

```
{
```

```
int i;
```

```
for(i=1; i<=S; i++)
```

```
{
```

```
point ("XYZ\n");
```

```
{
```

```
.
```

Q12 Print Name n times.

```
#include <stdio.h>
void main()
{
    int i, n;
    printf("Enter the n ");
    scanf("%d", &n);
    for (i=1; i<=n; i++)
    {
        printf(" XYZ \n");
    }
}
```

Q13 Sum of number divisible by 13
from 1 to 100.

```
#include <stdio.h>
void main()
{
    int i, sum=0;
    for (i=1; i<=100; i++)
    {
        if (i % 13 == 0)
        {
            sum = sum + i;
        }
    }
}
```

point f ("sum = %d\n", sum);
d

Q14 Sum & mean of 10 values

#include<stdio.h>

void main () .

d

int i, sum=0, x;

float mean;

for print f ("Enter the values");

for (i=1; i<=10; i++)

d

Scanf ("%d", &x);

Sum \Rightarrow sum + x;

{

mean \Rightarrow sum / 10.0;

print f ("Sum = %d, Mean = %d \n",
sum, mean);

{

~~Q15~~ Sum & mean of n values

```
#include <stdio.h>
void main()
{
    int i, n, x, sum = 0;
    float mean;
    printf("Enter the n");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
    {
        scanf("%d", &x);
        sum = sum + x;
    }
    mean = sum / float{n};
    printf("Sum = %d", sum);
    printf("Mean = %d", mean);
}
```

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largest & Smallest out of 100 numbers.

```
#include <stdio.h>
void main()
{
    int n[100];
    int i, l, s;
    printf("Enter 100 numbers \n");
    for(i=0; i<100; i++)
    {
        scanf("%d", &n[i]);
    }
    largest l = s = n[0];
    for(i=1; i<100; i++)
    {
        if(n[i]>l)
        {
            l = n[i];
        }
        else if(n[i]<s)
        {
            s = n[i];
        }
    }
}
```

```
printf("largest number=%d\n",
```

```
printf("Smallest number=%d\n", s);
```

Q12 Count +ve, -ve & zero in 200 values

```
#include<stdio.h>
void main()
{
    int i, num, b=0, n=0, z=0;
    printf("Enter the num");
    for(i=1; i<=5; i++)
    {
        scanf("%d", &num);
        if(num>0)
            b++;
        else if(num<0)
            n++;
        else
            z++;
    }
}
```

```
2++;  
{  
    printf("%d", p);  
    printf("%d\n", n);  
    printf("%d", 2);  
}
```

Q819 Integers from 1 to 100 divisible by 15

```
#include <stdio.h>  
void main ()  
{  
    int i;  
    for(i=1; i<=100; i++)  
    {  
        if (i%15 == 0)  
            printf("%d", i);  
    }  
}
```

Q20 Sum of integers 1-100 divisible by 3.

```
#include <stdio.h>
int main()
{
    int i, sum = 0;
    for (i = 1; i <= 100; i++)
        if (i % 3 == 0)
            sum = sum + i;
    printf("%d", sum);
}
```

Q21 Separate digits of a number.

```
#include <stdio.h>
int main()
{
    int num, digit;
    printf("Enter number");
    scanf("%d", &num);
}
```

Q21 ~~Print~~ while ($\text{num} > 0$)

```
    digit = num % 10;  
    printf("%d", digit);  
    num = num / 10;  
    printf("\n");
```

Q22 Count digits in a number.

```
#include <stdio.h>  
void main ()  
{  
    int num, count = 0;  
    printf("Enter number");  
    scanf("%d", &num);  
    while (num > 0)  
    {  
        num = num / 10;  
        count++;  
    }  
    printf("Total Digits %d", count);  
}
```

Q23 Sum of digits.

```
#include <stdio.h>
void main()
{
    int num, sum=0, d;
    printf("%d", &num);
    while (num>0)
    {
        d = num % 10;
        sum = sum + d;
        num = num / 10;
    }
    printf("Sum%d", sum);
}
```

Q24 Reverse digits.

```
#include <stdio.h>
void main()
{
    int num, rev=0, d;
    printf("%d", &num);
```

while (num > 0)

{ d = num % 10;

rev = (rev * 10) + d;

num = num / 10;

printf ("Reverse %d", rev);

8/25 Check Palindrome.

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

```
void main()
```

{ int num, rev = 0, t, d;

printf ("Enter number");

scanf ("%d", &num);

t = num;

while (t > 0)

{

 d = t % 10;

 rev = rev * 10 + d;

 t = t / 10;

}

```
if (r == num)
}
else
{
    print ("Not a palindrome")
}
```

Q2c check Armstrong number

```
#include < stdio.h >
void main()
{
    int num, t, d, sum=0;
    printf ("Enter a number");
    scanf ("%d", &num);
    t = num;
    while (t > 0)
    {
        d = t % 10;
        sum = sum + d * d * d;
        t = temp / 10;
    }
}
```

```
if (sum == num)
    print("Armstrong");
else
    printf("Not a Armstrong");
```

Q22 factors of a number

```
#include <stdio.h>
void main()
{
    int num;
    printf("Enter number");
    scanf("%d", &num);
    printf("Factors");
    for(i=1; i<=num; i++)
    {
        if (num % i == 0)
            printf("%d", i);
```

Q28 Check perfect number

```
#include <stdio.h>
void main()
{
    int num, i, sum=0;
    printf("Enter number");
    scanf("%d", &num);
    for(i=1; i<=num/2; i++)
    {
        if(num % i == 0)
            sum = sum + i;
    }
    else if(sum == num)
        printf("Perfect number");
    else
        printf("Not perfect");
}
```

Q29 Check prime numbers.

```
#include <stdio.h>
void main()
{
    int num, i, f = 0;
    printf("Enter a number");
    scanf("%d", &num);
    for (i = 2; i < num; i++)
    {
        if (num % i == 0)
            f = 1;
        else if (f == 0)
            printf("Prime");
        else
            printf("Not Prime");
    }
}
```

Q23 All prime numbers between
1 & 500

```
#include <stdio.h>
void main()
{
    int i, j, f;
    for (i = 2; i <= 500; i++)
    {
        f = 0;
        for (j = 2; j < i; j++)
        {
            if (i % j == 0)
            {
                f = 1;
            }
            else if (f == 0)
            {
                printf ("%d", i);
            }
        }
    }
}
```

Q3) Sum of prime number between 18500.

```
#include<stdio.h>
void main()
{
    int i, j, f, sum=0;
    for(i=2; i<=500; i++)
    {
        f = 0;
        for(j=2; j<=i; j++)
        {
            if(i%j==0)
            {
                f = 1;
                break;
            }
            else if(f == 0)
            {
                sum = sum + i;
            }
        }
    }
    printf("sum %d", sum);
}
```

Q32 Count prime number between
1 to 500

```
#include <stdio.h>
void main()
{
    int i, j, f, count = 0;
    for (i = 2; i <= 500; i++)
    {
        f = 0;
        for (j = 2; j < i; j++)
        {
            if (i % j == 0)
            {
                f = 1;
            }
            if (f == 0)
                count++;
        }
        printf("Number of primes %d", count);
    }
}
```

833 Check automorphic numbers

```
#include <stdio.h>
void main()
{
    int num, sq, temp1, temp2, f = 0;
    printf("Enter number~");
    scanf("%d", &num);
    sq = num * num;
    temp1 = num;
    temp2 = sq;
    while (temp1 > 0)
    {
        if (temp1 % 10 != temp2 % 10)
            f = 1;
        temp1 = temp1 / 10;
        temp2 = temp2 / 10;
    }
    if (f == 0)
        printf("Automorphic");
    else
        printf("Not Automorphic");
}
```

Q34 Fibonacci series up to n number.

```
#include <stdio.h>
void main()
{
    int n, i, a=1, b=1, c;
    printf("Enter n");
    scanf("%d", &n);
    if (n>=1)
    {
        printf("%d", a);
    }
    else if (n>=2)
    {
        printf("%d", b);
    }
    for (i=3; i<=n; i++)
    {
        c = a+b;
        printf("%d", c);
        a = b;
        b = c;
    }
}
```