

PROGRAM-17

Write a program in C to compute and print the sum of the following series

$$S = 1 + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{21}$$

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

```
#include <conio.h>
```

```
main()
```

```
{
```

```
int sum, i;
```

```
clrscr();
```

```
sum = 0;
```

```
for (int i = 1; i <= 21; i++)
```

```
{
```

```
sum = sum + (1 / i);
```

```
}
```

```
printf("\n the sum of series = %d", sum);
```

```
}
```

PROGRAM - 18

Write a program in C to compute and print the sum of following series

$$S = 1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{6} + \dots + \frac{1}{20}$$

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

```
#include <conio.h>
```

```
main()
```

```
{
```

```
int i, sum, sum1;
```

```
clrscr();
```

```
sum = 0;
```

```
for(i = 2; i <= 20; i = i + 2);
```

```
{
```

```
sum = sum + (1/i);
```

```
}
```

```
sum1 = 1 + sum;
```

```
printf("\n
```

```
printf("\n The sum of series = %d", sum1);
```

```
}
```

PROGRAM-19

Write a program in C to find out the greatest among three using conditional operator.

```
#include <conio.h>
#include <stdio.h>
main()
{
    int a, b, c, max;
    clrscr();
    printf("\n Enter three numbers ");
    scanf("%d%d%d", &a, &b, &c);

    max = (a > b) ? (a > c ? a : c) : (b > c ? b : c);

    printf("\n The greatest among three numbers\n = %d", max);
}
```

PROGRAM-20

Write a program in C to compute the sum of series

$$S = 1^n + 2^n + 3^n + \dots + m^n$$

```
#include <math.h>
```

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

```
#include <conio.h>
```

```
main()
```

```
{
```

```
int m, n, p, sum, i;
```

```
clrscr();
```

```
printf("\n Enter the limit value");
```

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

```
printf("\n Enter the power value");
```

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

```
sum = 0;
```

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

```
{
```

```
p = pow(i, n);
```

```
sum = sum + p;
```

```
}
```

```
printf("\n The sum of series = %d", sum);
```

```
}
```