Assignment -: 4

1. Print numbers from 1 to 10 Solution:

```
#include <stdio.h>
int main() {
for(int i = 1; i <= 10; i++) {
printf("%d ", i);
}
return 0;
}
```

Output: 1 2 3 4 5 6 7 8 9 10

2. Print table for given number Solution:

```
#include <stdio.h>
int main() {
int n = 5;
for(int i = 1; i <= 10; i++) {
printf("%d ", n*i);
}
return 0;
}
```

3. Sum of numbers in a range Solution:

```
#include <stdio.h>
int main() {
int start = 1, end = 5, sum = 0;
for(int i = start; i <= end; i++) {
sum += i;
}
printf("%d", sum);
return 0;
}
```

Output: 15

4. Check if a number is Prime Solution:

```
#include <stdio.h>
int main() {
int n = 7, flag = 0;
for(int i = 2; i <= n/2; i++) {
if(n % i == 0) {
flag = 1;
break;
}
}
if(n <= 1) flag = 1;
if(flag == 0) printf("Prime");
else printf("Not Prime");
return 0;
}
```

Output: Prime

5. Check Armstrong number Solution:

```
#include <stdio.h>
#include <math.h>
int main() {
int n = 153, sum = 0, temp, rem, digits = 0;
temp = n;
while(temp != 0) {
temp /= 10;
digits++;
}
temp = n;
while(temp != 0) {
rem = temp % 10;
sum += pow(rem, digits);
temp /= 10;
}
if(sum == n) printf("Armstrong");
else printf("Not Armstrong");
return 0;
}
```

Output: Armstrong

6. Check Perfect number Solution:

```
#include <stdio.h>
int main() {
int n = 28, sum = 0;
for(int i = 1; i < n; i++) {
if(n % i == 0) sum += i;
}
if(sum == n) printf("Perfect");
else printf("Not Perfect");
return 0;
}
```

Output: Perfect

7. Factorial of a number Solution:

```
#include <stdio.h>
int main() {
int n = 5, fact = 1;
for(int i = 1; i <= n; i++) {
```

```
fact *= i;
}
printf("%d", fact);
return 0;
}
```

Output: 120

8. Check Strong number Solution:

```
#include <stdio.h>
int factorial(int n) {
int fact = 1;
for(int i = 1; i <= n; i++) fact *= i;
return fact;
}
int main() {
int n = 145, sum = 0, temp, rem;
temp = n;
while(temp != 0) {
rem = temp % 10;
sum += factorial(rem);
temp /= 10;
}
if(sum == n) printf("Strong");
else printf("Not Strong");
return 0;
}
```

Output: Strong

9. Check Palindrome number Solution:

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

```
int main() {

int n = 121, rev = 0, temp;

temp = n;

while(temp != 0) {

rev = rev * 10 + temp % 10;

temp /= 10;

}

if(rev == n) printf("Palindrome");

else printf("Not Palindrome");

return 0;

}
```

Output: Palindrome

10. Sum of first and last digit Solution:

```
#include <stdio.h>

int main() {

int n = 12345, first, last;

last = n % 10;

first = n;

while(first >= 10) first /= 10;

printf("%d", first + last);

return 0;

}
```

Output: 6 (1 + 5)