INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY
THIRUVANANTHAPURAM – 695 547

Assignment Sheet – 4
B.Tech – II Semester
MA122 – Computer Programming and Applications

Time: 02:00pm – 04:30pm

1) Create a function which accepts an integer as parameter and return true if it is a perfect number otherwise return false. In the main() method input two integers and check whether both the numbers are perfect numbers or not. (Perfect number is a postive integer that is equal to the sum of its proper divisors.)

2) Create a function which accepts an integer as parameter and return the largest digit. In the main() method input 10 integers and find the sum of the largest digits of each number.

3) Create functions boolean prime(int n), which returns true if n is prime otherwise returns false and int sumPrime(int n), which returns the sum of prime digits present in integer n. In main() method call both these function for illustration.

4) Create a recursive function to compute the factorial of a given number. In main() receive an integer and call this recursive function.

5) Create a function which accepts an integer as parameter and return true if it is magic number otherwise return false. In the main input an integer and check whether it is a magic number or not.

   (If you iterate the process of summing the decimal digits of a number and if this process terminates in 1, then the original number is called a magic number. For example 55=>(5+5)=10=>(1+0)=1).