## PROBLEM 8 (28.09.16)

- 1. Write function for finding smallest factor of a given number.
- 2. Write function to find sum of all odd factors of a given number.
- 3. Write function to find the location of the biggest integer for a given number.
- 4. Write function to find the first number of a given number of flexible size.
- 5. Write function to replace the kth digit by 9. Take k as input.
- 6. Write function, which reads a number. If it is even then output its square. If it is odd then output its cube. Input 4 output 16. Input 5 output 125.
- 7. Write function to exchange the digits before and after decimal point.
- 8. Write a function to check whether there is any prime number whining an interval.
- 9. Write a function to find the product of all odd factors of a given number.
- 10. Define function, which will return numbers after deleting even and odd digits. input 325768175 output 357175 and 268.
- 11. Define function, which finds how many digits are more than 5 and how many are less than 7. Input 2356781 output 3 and 5.
- 12. Define function, to find all numbers those are multiple of 7 within the given range.
- 13. Define function, to find all numbers those are multiple of 7 and 3 both within the given range.
- 14. Define function, to find all numbers those are multiple of 7 but not multiple of 3 within the given range.
- 15. Write function, which reads a number and outputs the sum of  $x^y$ . Here x and y are consecutive digits. Input 81924 output  $8^1 + 1^9 + 9^2 + 2^4 = 8 + 1 + 81 + 16 = 106$ .
- 16. Write function to find difference between the last and first digit of a given number of flexible size.
- 17. Write function to find the weighted sum of digits. ws(1347)=4\*1+3\*3+2\*4+1\*7=38.
- 18. Write program, which reads a, b and c as sides of a triangle and prints area with a function *area*.
- 19. Write a program with the functions *mean ()* and *standard deviation ()* which will calculate the mean and standard deviation of k numbers and the program should have a function *print()* to print the values of numbers, mean and standard deviation. Do not use array.
- 20. Write functions to find binary from decimal and vice versa.