

## **PRACTICAL LIST 2018-19**

### **CLASS 11 CS**

#### **INPUT/OUTPUT PYTHON PROGRAM**

1. Write a simple python program in a Text Editor to print "Hello world".
2. Write a simple python program to assign same value to multiple variables.
3. Write a simple python program to assign multiple values to multiple variables.
4. Write a simple python program using single line comment and multiline comment.
5. Write a simple python program to get the input from the user interactively using the built-in function input ().
6. Write a simple python program to get the input from the user and use int () or float () function with the read value to change the type.
7. Write a python program to print the area of a circle of radius 3.75 meters.
8. Write a simple python program to obtain three numbers and print their sum.
9. Write a simple python program to obtain length and breadth of a rectangle and calculate the area.
10. To obtain temperatures of 07 days and then display average temperature of the week.

#### **Conditional Statement**

1. WAP to find no is -ve or +ve
2. WAP to find no is even and odd
3. WAP to find elder person in 2 persons
4. WAP to find given year is leap year or not
5. Write a program to compute area of square and triangle
6. WAP to display age is greater than 18 or not
7. Write a program to compute simple interest.
8. WAP to find Person is senior citizen or not, input age
9. WAP to find which no is greater no in 2 numbers
10. WAP to find which no is lowest no in 2 numbers
11. WAP to find which no is greater no in 3 numbers
12. WAP to check whether a number is divisible by 5 and 11 or not.

13. WAP to display Digit in text (0 to 9)
14. WAP to Check given character is vowel or not.
15. Write a python program to check whether the year is leap year or not.
16. Write a program to print roots of a quadratic equation  $ax^2 + bx + c = 0$  (where  $a \neq 0$ ).
17. WAP to input marks in 3 subjects, compute average and then calculate grades as per following guidelines:

Grade	Remarks	MArks
A	Level 4, above agency-normalized standards	80% and above
B	Level 3, at agency-normalized standards	70-79%
C	Level 2, Below but approaching agency-normalized standards	60-69%
D	Level 1- well below agency-normalized standards	50-59%
E	Level 1- too below agency-normalized standards	40-49%
R	Remedial standards	39% and below

18. Write a menu driven program to calculate:
  1. Area of circle  $[A = \pi r^2]$
  2. Area of square  $[A = a * a]$
  3. Area of rectangle  $[A = l * b]$

### ITERATIVE STATEMENTS

1. WAP to display all number from 1 to 15.
2. WAP to display sum of all numbers from 1 to 10.
3. WAP to display Average of numbers from 1 to 10.
4. WAP to display multiply all numbers from 1 to 10.
5. WAP to display Square all numbers from 1 to 20.
6. WAP to display Cube all numbers from 1 to 100
7. WAP to display all odd numbers from 1 to 100
8. WAP to display all even numbers from 1 to 100
9. WAP that uses exactly four for loops to print the sequence of letters below.  
 AAAAAAAAAABBBBBBBBCCCCCEEEEE

10.WAP to print the following

```
*  
**  
***  
****  
*****
```

11.WAP to print following pattern

```
#####  
####  
###  
##  
#
```

12. Write a script to print following:

```
8  
86  
864  
8642
```

13. Take an integer input N from the user. Print N Fibonacci numbers. Recall that Fibonacci series progresses as 0 1 1 2 3 5 8...

14. Take an integer input N from the user. Find Factorial of N and print it .

15. Print first 10 prime numbers.

16. Take an integer input N from the user. Print the table of N.

17. WAP to check whether the given number is palindrome or not.

### **String Manipulation**

1. WAP that should perform the following tasks

- i. After getting a word from the user, your program should use a loop to print out each of the letters of the word. just remember that strings in Python start with element 0!
- ii. Print out each of the letter in reverse order.
- iii. Make a new variable that is the original word reverse and print variable.
- iv. Code to count number

2. Write a loop that prints out the index of every 'i' in 'Mississippi'.

3. Using endswith() and startswith() function print the character used in the start and end of a string.

4. Write a python program to enter a string and a substring. It should then display the number of occurrences of the given substring in the line.
5. WAP that inputs a word and prints "Yes it starts!!" if the given word starts with "0", "1", "2", ....., "9".
6. WAP to reverse a string by using function.
7. Write a python program to print elements of a list ['q', 'w', 'e', 'r', 't', 'y'] in separate lines along with element's both indexes.
8. WAP to replace a character in a string.
9. Program to print whether a given character is an uppercase or a lowercase character or a digit or any other character.
10. Write a python program to enter a string.
11. Write a python program to enter a string in smaller case and convert it into upper case.
12. Write a python program to enter a string and print the length of the string using built-in function.
13. Write a python program to replace one string with the other string.
14. Write python program to enter a string and then enter a character and check the frequency of that character in that string.
15. Write a python program that receives the index and returns the corresponding value.
16. Write a python program that inputs two tuples and creates a third that contains all elements of the first followed by all elements of the second.

### **LIST**

1. WAP that returns the largest even number in the list of integers. If there is no even number in input, print "No even number".
2. WAP that prints the sum of the even indexed elements of L, minus the sum of the odd-indexed elements of L.
3. WAP to find the median from a given list.
4. WAP to find the mode, from a given list.
5. Write a python program that inputs a list of numbers and shifts all the zero's to right and all non-zero numbers to left of the list.

## TUPLES

1. WAP to print the alternate elements of a tuple T.
2. WAP to print every 3<sup>rd</sup> element of a tuple T, raised to power 3.
3. Write a python program that inputs two tuples and creates a third that contains all elements of the first followed by all elements of the second.
4. WAP that takes a tuple with words in "Pig Latin" and translates it back to original text.
5. WAP that input a number n and creates a tuple containing: n, 2n, 3n and 4n.

## DICTIONARIES

1. Write a program to create a phone dictionary for the students of class XI and print their Index values.
2. WAP that uses a dictionary that contains ten usernames and password. The program should ask the user to enter their username and passwords. If user name is not in the dictionary, the program should indicate that the person is not a valid user of the system. If the user name is in the dictionary, but the user does not enter the right password, the program should say that the password is invalid. If the password is correct, then the program should tell the user that they are now logged into the system.
3. Create a nested dictionary that stores the marks details along with student names and then prints the output.

## SORTING

1. WAP to perform insertion sort on a given lists of strings.
2. WAP to perform bubble sort on a given lists of strings.
3. WAP to perform sorting on a given list of strings, on the basis of just the first letter of the strings. Ignore all other letters for sorting purposes.