

Test 1 Basics up to for loops

Maximum Time: 250 minutes **Total Score:** 100

All the questions are mandatory.

1. Write a program to print odd numbers of a Fibonacci series up to 4 million. Expected Outcome like: 1,3,5,13.....
2. Write a program to enter name of the user then print each character of name and find out ASCII code for the same.
3. Write a program to print Armstrong numbers in range of 1 million.
4. Write a program to print pyramid of first 10 English alphabets. Pyramid structure should be centred.
5. Take 10 integers from keyboard using loop and print their average value on the screen.
6. Print the following patterns using loop:

1010101

10101

101

1

7. Write an infinite loop. An infinite loop never ends. Condition is always true.
8. Take integer inputs from the user until he/she presses q (Ask to press q to quit after every integer input). Print average and product of all numbers.
9. Write a program to reverse all the numbers up to 1 million and print palindrome numbers. Program should iterate in reverse order as well.
10. A shop will give discount of 10% if the cost of purchased quantity is more than 1000. Ask user for quantity. Suppose, one unit cost 100. Judge and print total cost for user.
11. Take input of age of 3 people by user and determine oldest and youngest among them.
12. A student will not be allowed to sit in exam if his/her attendance is less than 75%
 - a. Take following input from user.
 - b. Number of classes held.
 - c. Number of classes attended.
 - d. And print percentage of class attended and ask user if he/she has medical cause or not ('Y' or 'N') and print if student is allowed to sit in exam or not.
13. A school has following rules for grading system:
 - a. Below 25 – F
 - b. 25 to 45 – E
 - c. 45 to 50 – D
 - d. 50 to 60 – C

e. 60 to 70 – B

f. 60 to 80 - A

Ask user to enter marks and print the corresponding grade.

14. Write a program to print absolute value of a number entered by user. E.g –

a. INPUT: 1 OUTPUT: 1

b. INPUT: -1 OUTPUT: 1

15. Write a program to check if a year is leap year or not.

16. Ask user to enter age, sex(M or F), marital status(Y or N) and then using following rules print their place of service.

a. If employee is female, then she will work only in urban areas.

b. If employee is a male and age is in between 20 to 40 then he may work in anywhere.

c. If employee is male and age is in between 40 to 60 then he will work in urban areas only.

d. And any other input of age should print “ERROR”

17. Write a program to find the length of the string “refrigerator” without using len function.

18. Write a program to perform following operation:

INPUT: “WHITE PAGE”

EXPECTED OUTPUT: “WHITE PAGE”

19. Write a program to find the number of vowels, consonants, digits and white space characters in a string.

20. Write a program that takes your full name as input and displays the abbreviations of the first and middle names except the last name which is displayed as it is. For example, if your name is Robert Brett Roser, then the output should be R.B. Roser.