

Python Test

1. A certain grade of steel is graded according to the following conditions:
 - (i) Hardness must be greater than 50
 - (ii) Carbon content must be less than 0.7
 - (iii) Tensile strength must be greater than 5600

The grades are as follows:

Grade is 10 if all three conditions are met

Grade is 9 if conditions (i) and (ii) are met

Grade is 8 if conditions (ii) and (iii) are met

Grade is 7 if conditions (i) and (iii) are met

Grade is 6 if only one condition is met

Grade is 5 if none of the conditions are met

Write a program, which will require the user to give values of hardness, carbon content and tensile strength of the steel under consideration and output the grade of the steel.

2. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

Percentage $\geq 90\%$: Grade A
Percentage $\geq 80\%$: Grade B
Percentage $\geq 70\%$: Grade C
Percentage $\geq 60\%$: Grade D
Percentage $\geq 40\%$: Grade E
Percentage $< 40\%$: Grade F
3. Write a program to take input of a year and check if it is leap year or not using nested if
4. Write a program to take input of a number and print its table

5. Write a program to take input of a number and count the number of Digits of it
6. Write a program to take an input and check whether the number is palindrome or not
7. Write program to take an input and check whether the number is Prime or Composite
8. Write a program to print all the palindrome number between 1 to 500
9. Write a program to take input of a number and calculate the sum of all natural numbers till it
10. Write a program to take input of a number and find all even and odd numbers till it.

1. What function is used to check the data type of a variable
 - a. Print
 - b. Type
 - c. Input
 - d. None of the above

2. Why do we use variables

3. What function is used to print in python
 - a. Scanf
 - b. Type
 - c. printf
 - d. None of the above

4. What function is used to take input in python
 - a. Scanf
 - b. Input
 - c. print
 - d. type

