

Python Test

Theory Questions: (20 Marks)

1. What are the different types of Digital Number Systems and write there bases?
2. What does ASCII , ISCII stand for?
3. What is Unicode? How is it useful?
4. Define Boolean Algebra and why do we use it?
5. Define logic gates and list different types of logic gates?
6. Define DeMorgan's Theorem and list the two laws.
7. Draw the truth table for OR, AND and NOT Gates .
8. Define Tokens in Python?
9. What is Dynamic typing?
10. What is ** operator in Python?

Conversion Questions: (20 Marks)

1. Convert $(101001)_2$ to $(?)_{10}$?
2. Convert $(1010000011000101)_2$ to $(?)_{16}$?
3. Convert $(A2B)_{16}$ to $(?)_{10}$?
4. Convert $(456)_{10}$ to $(?)_8$?
5. Convert $(101.110)_2$ to $(?)_8$?

Programing Questions: (60 Marks) - Do Any 4 Programs

1. Write a program to print the following patterns:

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

2. Write a program to display the multiplication table for the number entered by user.

Example:

If $n=5$

$5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = 15$

...

$5 \times 10 = 50$

3. Write a program to print the Fibonacci series.

Example: 0 1 1 2 3 5 8 ...

4. Write a program to display the following series:

$S = 2! - 4! + 6! - 8! + \dots N$ terms.

5. Read a String and display the piglatin form of the same . For example: If the given word is "King" then the Pig-Latin form is "ingKAY". Basically all the letters from the first character till you find a vowel is moved to the end of the word and "ay" is appended after that.