**UNIVERSITY COLLEGE OF ENGINEERING (BIT CAMPUS),**

**TIRUCHIRAPPALLI-620 024**

**Second Internal Assessment Test**

**Department of CSE / IT**

**Subject Code :GE8151 Subject Name : Problem Solving and Python Programming**

**Date&Duration :**09.11.2018& 11.15am - 12.45 pm**Marks:50**

**Degree/Branch:** B.E/B.Tech - Mechanical – Sec’**I**’**Year/Semester:** I / I

**PART-A**

**Answer *All* Questions 7 x 2 = 14**

1. Define interpreter.

In computer science, an **interpreter** is a computer**program** that directly executes, i.e. performs, instructions written in a **programming** or scripting language, without requiring them previously to have been compiled into a machine language **program**.

1. Give the various data types in Python.

**Python has five standard Data Types:**

* Numbers.
* String.
* List.
* Tuple.
* Dictionary.

1. Discuss about continue and break statements.

Break Statement

In Python, the break statement provides you with the opportunity to exit out of a loop when an external condition is triggered. You’ll put the break statement within the block of code under your loop statement, usually after a [conditional if statement](https://www.digitalocean.com/community/tutorials/how-to-write-conditional-statements-in-python-3-2).

**Continue Statement**

The continue statement gives you the option to skip over the part of a loop where an external condition is triggered, but to go on to complete the rest of the loop. That is, the current iteration of the loop will be disrupted, but the program will return to the top of the loop.

1. List out the escape sequence characters.

Escape sequences. The following is a list of escape sequences.

\n Newline

\t Horizontal Tab

\v Vertical Tab

\b Backspace

\r Carriage Return

\f Form feed

\a Audible Alert

1. List out the types of operators.

**Types of operators**

* Assignment **Operator**.
* Mathematical **Operators**.
* Relational **Operators**.
* Logical **Operators**.
* Bitwise **Operators**.
* Shift **Operators**.
* Unary **Operators**.
* Ternary **Operator**.

1. What will be the output of the following code

a=60

b=13

print(a&b)

print(a|b)

1. Define literals and its types.

**Constants** refer to fixed values that **the** program may not alter during **its** execution. These fixed values are also called **literals**. **Constants** can be of any of **the** basic data**types** like an integer constant, a floating constant, a character constant, or a string**literal**. There are enumeration **constants** as well.

**PART-B**

**Answer allQuestions 3 x 12 = 36**

1. Explain Decision making statements with syntax and example code.

**Decision making** structures require that the programmer specifies one or more conditions to be evaluated or tested by the program, along with a **statement** or **statements** to be executed if the condition is determined to be true, and optionally, other **statements**to be executed if the condition is determined to be false.

1. Explain looping statements with syntax and example code.

* [Define loop?](https://www.programiz.com/c-programming/c-for-loop#loop-what)
* [for loop (and it's syntax)](https://www.programiz.com/c-programming/c-for-loop#for-loop)
* [How for loop works](https://www.programiz.com/c-programming/c-for-loop#for-loop-working)
* [for Loop flowchart](https://www.programiz.com/c-programming/c-for-loop#for-flowchart)
* [Example: for loop](https://www.programiz.com/c-programming/c-for-loop#example-for-loop)

Loops are used in programming to repeat a block of code until a specific condition is met. There are three loops in C programming:for loop

1. [while loop](https://www.programiz.com/c-programming/c-do-while-loops)
2. [do...while loop](https://www.programiz.com/c-programming/c-do-while-loops)
3. Explain in details about logical, membership and identity operators with example code.

* [Python](https://www.programiz.com/python-programming/operators#what) Operators
* [Arithmetic Operators](https://www.programiz.com/python-programming/operators#arithmetic)
* [Comparison (Relational) Operators](https://www.programiz.com/python-programming/operators#comparison)
* [Logical (Boolean) Operators](https://www.programiz.com/python-programming/operators#logical)
* [Bitwise Operators](https://www.programiz.com/python-programming/operators#bitwise)
* [Assignment Operators](https://www.programiz.com/python-programming/operators#assignment)
* [Special Operators](https://www.programiz.com/python-programming/operators#special)
* [Indentity Operator](https://www.programiz.com/python-programming/operators#identity)
* [Membership Operator](https://www.programiz.com/python-programming/operators#membership)