

ST. MARY'S ENGLISH HIGH SCHOOL

SYLLABUS FOR THE

CLASS: XI

(APRIL TO JUNE)
Features of Python, Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, operators.
Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression.
Introduce the notion of a variable, and methods to manipulate it (concept of Lvalue and R-value even if not taught explicitly).
Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence.
Operators & types: Binary operators-Arithmetic, Relational operators, Logical Operators, Augmented Assignment operators.
(OCTOBER TO DECEMBER)
Sorting algorithm: bubble and insertion sort; count the number of operations while sorting.
Introduction to Python modules: Importing math (sqrt, ceil, floor, pow, fabs, sin, cos, tan, random (random, randint, randrange), statistics (mean, median, mode) modules.
Relational databases:
Use SQL – DDL/ DML commands

DATE: _____

OOL, BISTUPUR, JAMSHEDPUR
YEAR - 2019 - 2020

SUBJECT: COMPUTER Sc.(Python)

(JULY TO SEPTEMBER)

Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, and divisibility.

Notion of iterative computation and control flow: `for(range(),len())`, `while`, flowcharts, suggested programs: interest calculation and factorials, etc.

Lists, tuples and dictionary: finding the maximum, minimum, mean; linear search on list/tuple of numbers, and counting the frequency of elements in a list using a dictionary. Introduce the notion of accessing elements in a collection using numbers and names.

Strings: Traversing, compare, concat, substring.

(JANUARY TO MARCH)

Aggregate functions – MIN,MAX,AVG,COUNT,SUM ¶ Basics of NoSQL databases.

Society, Law and Ethics - Cyber safety

Revision

SIGNATURE: _____