

# 12<sup>th</sup> COMPUTER SCIENCE NEW SYLLABUS

## GLOSSARY

| Terminology                            | Meaning   |
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| <i>Access control</i>                  | <i>security technique that regulates who or what can view or use resources in a computing environment</i>   |
| <i>Access modifiers</i>                | <i>Private , Protected and Public</i>   |
| <i>append()</i>                        | <i>Used to add an element in a list</i>   |
| <i>Argument</i>                        | <i>Argument is the actual value of this variable that gets passed to function.</i>  |
| <i>argv</i>                            | <i>An array containing the values passed through command line argument</i>  |
| <i>Attribute</i>                       | <i>Data items that makes up an object</i>   |
| <i>Authorization</i>                   | <i>Giving permission or access</i>  |
| <i>Block</i>                           | <i>Set of Statements</i>  |
| <i>Boolean</i>                         | <i>means Logical</i>  |
| <i>break</i>                           | <i>Exit the control</i>   |
| <i>c = sqlite3.connect('test. db')</i> | <i>create a database connection to the SQLite database 'test.db'. You can also supply the special name:memory: to create a database in RAM.</i>     |
| <i>c.close()</i>                       | <i>To release the connection of the database</i>  |
| <i>c.commit()</i>                      | <i>To save the changes made in the table</i>  |
| <i>c.execute()</i>                     | <i>Executes all SQL commands .Accepts two kinds of placeholders: question marks ? (“qmark style”) and named placeholders :name (“named style”).</i> |
| <i>Cartesian product</i>               | <i>Cartesian operation is helpful to merge columns from two relations</i>   |
| <i>cd</i>                              | <i>cd command refers to change directory</i>  |
| <i>Class</i>                           | <i>Template of creating objects.</i>  |
| <i>Class variable</i>                  | <i>An ordinary variable declared inside a class</i>   |
| <i>cls</i>                             | <i>To clear the screen in command window</i>  |
| <i>Comma(,)</i>                        | <i>Comma is used to separate each data in a csv file</i>  |

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| <b>compiler</b>               | <i>Scans the entire program and translates it as a whole into machine code. It generates the error message only after scanning the whole program. Hence debugging is comparatively hard.</i> |
| <b>Conjunction</b>            | <i>Concurrence, coincidence</i>  |
| <b>Constraint</b>             | <i>Restriction or limitation</i>   |
| <b>Constructor</b>            | <i>A special function get execution automatically when an object enter into scope.</i>   |
| <b>continue</b>               | <i>To skiptheremainingpartandstartwithnextiteration.</i>   |
| <b>CRUD</b>                   | <i>Create, Read, Update and Delete</i>   |
| <b>csv.reader()</b>           | <i>The reader function is designed to take each line of the file and make a list of all columns</i>  |
| <b>csv.register_dialect()</b> | <i>A dialect describes the format of the csv file that is to be read</i>   |
| <b>CsvQuote All</b>           | <i>If quoting is set to csvquote all, then writerow() will quote all fields.</i>   |
| <b>cur = c.cursor()</b>       | <i>Creating cursor object</i>  |
| <b>cur.fetchall()</b>         | <i>method to get a list of the matching rows.</i>  |
| <b>cur.fetchmany()</b>        | <i>method that returns the next number of rows (n) of the result set</i>   |
| <b>cur.fetchone()</b>         | <i>method to retrieve a single matching row</i>  |
| <b>CWI</b>                    | <i>Centrum Wiskunde &amp; Informatica</i>  |
| <b>DBA</b>                    | <i>DataBase Adminstrator</i>   |
| <b>DBMS</b>                   | <i>Database Management System</i>  |
| <b>def</b>                    | <i>This keyword is used to define function.</i>  |
| <b>Destructor</b>             | <i>A special function get execution automatically when an object exit from its scope.</i>  |
| <b>dict()</b>                 | <i>Itis used to printthe data in dictionaryformatwithout orderdict</i>   |
| <b>Dictionary</b>             | <i>Collection of Key-Value pairs</i>   |
| <b>DictReader()</b>           | <i>Works by reading in the first line of the CSV and using each column comma separated value in this line as a dictionary key.</i>   |
| <b>Dictwriter()</b>           | <i>Write dictionary data into a CSV file</i>   |

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| <i>elif</i>                          | <i>else...if</i>  |
| <i>Embedded</i>                      | <i>Firmly attached</i>  |
| <i>Enter key</i>                     | <i>Enter key or newline is used to create rows in a csv file</i>  |
| <i>eval()</i>                        | <i>This function is used to evaluate the value of a string.</i>   |
| <i>Father of Relational Database</i> | <i>Dr. Edgar Frank Codd</i>   |
| <i>g++</i>                           | <i>compiler to compile c++ program</i>  |
| <i>GIS</i>                           | <i>Geographic Information System</i>  |
| <i>global Scope</i>                  | <i>A variable, with global scope can be used anywhere in the program.</i>   |
| <i>Glue language</i>                 | <i>You do not write the complete application in the language, but rather, you use the language to orchestrate(organize) modules written in (possibly many different) other languages, making them work together to form the application. A glue language makes it easy to do that (convenient syntax, good support for inter-process communication and data managing, no compilation step etc).</i> |
| <i>id ()</i>                         | <i>It returns the memory address of the given object.</i>   |
| <i>IDLE</i>                          | <i>Integrated Development Environment</i>   |
| <i>immutable</i>                     | <i>unchangeable</i>   |
| <i>Implementation</i>                | <i>Implementation carries out the operation declared in the interfac</i>  |
| <i>import</i>                        | <i>Import in python is similar to #include header_file in C++. Python modules can get access to code from another module by importing the file/function using "import" statement.</i>   |
| <i>Impure Functions</i>              | <i>Any function that changes the internal state of one of its arguments or the value of some external variable is an impure function.</i>   |
| <i>Instantiation</i>                 | <i>Process of creating an object</i>  |
| <i>Integrity</i>                     | <i>Whole and undivided</i>  |
| <i>Interactive Mode</i>              | <i>A way of using the Python interpreter by typing command and expressions at the prompt.</i>   |
| <i>Interface</i>                     | <i>Interface defines what an object can do, but doesn't actually do it</i>  |

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| <i>interpreter</i>                 | <i>Translates program one statement at a time. It continues translating the program until the first error is met, in which case it stops. Hence debugging is easy.</i>  |
| <i>Intersection</i>                | <i>Intersection defines a relation consisting of a set of all tuple that are in both A and B.</i>   |
| <i>Key</i>                         | <i>Data that is mapped to a value in a dictionary</i>   |
| <i>lambda</i>                      | <i>Lambda function is mostly used for creating small and one- time anonymous function.</i>  |
| <i>LEGB rule</i>                   | <i>Local → Enclosed → Global → Built-in scope</i>   |
| <i>List</i>                        | <i>Mutable ordered collection of values</i>   |
| <i>local Scope</i>                 | <i>A variable declared inside the function's body or in a block is called local scope.</i>  |
| <i>Looping</i>                     | <i>Repetition</i>   |
| <i>Mapping</i>                     | <i>The process of binding a variable name with an object</i>  |
| <i>Method</i>                      | <i>A function declared and defined inside a class.</i>  |
| <i>module</i>                      | <i>A module is a file containing Python definitions and statements. The file name is the module name with the suffix .py appended. Within a module, the module's name (as a string) is available as the value of the global variable name .</i> |
| <i>Namespaces</i>                  | <i>containers for mapping names of variables to objects</i>   |
| <i>Nested Block</i>                | <i>A block within a block is called nested block.</i>   |
| <i>next()</i>                      | <i>The next() function returns the next item from the iterator. It can also be used to skip a row of the csv file</i>   |
| <i>Object</i>                      | <i>Collection of Data and Functions.</i>  |
| <i>Object Oriented Programming</i> | <i>Computer Programming concept based on real world objects.</i>  |
| <i>operator.itemgetter(col_no)</i> | <i>To sort by more than one column from a csv file</i>  |
| <i>os.system()</i>                 | <i>Used to execute system command and here in our python program is used to compile the c++ program using g++</i>   |
| <i>Parameter</i>                   | <i>Parameter is variable in the declaration of function definition.</i>   |

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| <i>parse</i>                           | <i>To split an input into pieces of data that can be easily stored or manipulated.</i>  |
| <i>pass</i>                            | <i>Can be used as placeholder in functions and loops.</i>   |
| <i>Projection ( <math>\pi</math> )</i> | <i>The projection eliminates all attributes of the input relation but those mentioned in the projection list</i>  |
| <i>Prompt</i>                          | <i>Character (&lt;&lt;&lt;) displayed by the interpreter to indicate that it is ready to take input from the user.</i>  |
| <i>Pure Functions</i>                  | <i>Pure functions always returns the same result if the same arguments are passed in</i>  |
| <i>Python prompt</i>                   | <i>&gt;&gt;&gt;</i>   |
| <i>Queue</i>                           | <i>Queue is an abstract data structure, somewhat similar to Stacks. Unlike stacks, a queue is open at both its ends. One end is always used to insert data(enqueue) and the other is used to remove data(dequeue). Queue follows First-In-First-Out methodology, i.e., the data item stored first will be accessed first.</i> |
| <i>RDBMS</i>                           | <i>Relational Database Management System</i>  |
| <i>recursion</i>                       | <i>When a function calls itself is known as recursion.</i>  |
| <i>Redundant</i>                       | <i>Duplication of data</i>  |
| <i>Routines</i>                        | <i>routines are otherwise called as functions or methods. In Python it is also called as definition</i>   |
| <i>Schema</i>                          | <i>Structure or model</i>   |
| <i>Scope</i>                           | <i>Visibility of variables, parameters and functions in one part of a program to another part of the same program.</i>  |
| <i>Script</i>                          | <i>A Python program stored in a file.</i>   |
| <i>Script Mode</i>                     | <i>A way of using the Python interpreter by typing command and expressions at the prompt.</i>   |
| <i>Select ( <math>\sigma</math> )</i>  | <i>The SELECT operation is used for selecting a subset of the tuples according to a given selection condition</i>   |
| <i>Selectors</i>                       | <i>Functions that retrieve information from the data type.</i>  |
| <i>Sequential</i>                      | <i>One after another</i>  |
| <i>Set difference(-)</i>               | <i>(-) symbol denotes it. The result of A-B is a relation which includes all tuples that are in A but not in B.</i>   |

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| <i>skipinitialspace=true</i> | <i>When true, whitespace immediately following the delimiter is ignored. The default is false</i>  |
| <i>slicing</i>               | <i>cut</i>   |
| <i>Stack</i>                 | <i>A stack (sometimes called a “push-down stack”) is an ordered collection of items where the addition of new items and the removal of existing items always takes place at the same end. This end is commonly referred to as the “top.” The end opposite the top is known as the “base. This ordering principle is sometimes called LIFO, last- in first-out.</i> |
| <i>stride</i>                | <i>a long step</i>   |
| <i>string</i>                | <i>sequence of letters, numbers or symbols</i>   |
| <i>subscript</i>             | <i>an index number</i>   |
| <i>Syntax</i>                | <i>The structure of a program</i>  |
| <i>Syntax Error</i>          | <i>An error in a program that makes it impossible to parse.</i>  |
| <i>Token</i>                 | <i>One of the basic elements of the syntactic structure of a program.</i>  |
| <i>Tuple</i>                 | <i>It is a sequence of immutable(not changeable) objects. Tuples are sequences, just like lists. Tuples are defined by having values between parentheses ( ).</i>  |
| <i>Union operation(U)</i>    | <i>Union is symbolized by symbol. It includes all tuples that are in tables A or in B.</i>   |
| <i>variable</i>              | <i>Memory box to store values</i>  |
| <i>writer ow()</i>           | <i>Method to write a single row of data in a file</i>  |
| <i>writer ows()</i>          | <i>Method to write multiple rows of data in a file</i>   |
| <i>FALSE</i>                 | <i>Logical value 0</i>   |
| <i>TRUE</i>                  | <i>Logical value 1</i>   |