Vidnyan Mahavidhyalaya Sangola
Department of Computer Science
Teaching Plan

Teacher Name: Miss Dhure M.D **Academic Year :2018-19**

Class	Subject	December	January
BCA-II	**Python Programming**	**Introduction to Python:** Features/Characteristics of Python, Installation and Working with Python, Structure of a Python Program, Writing simple python program, Executing python program using command line window and IDLE graphics window, Python Virtual Machine, Identifiers and Keywords, **Python Data Types:** Python Variables, Data types, Sequences, Sets, Literals, Constants, Type conversion, I/O Statements, Command line arguments. **Operators-**Arithmetic, Relational, Logical, Boolean, Assignment, Bit wise, Membership, Identity, Operator Precedence and Associativity	**Conditional Statements-** if, if-else, nested if –else,**Looping-**for, while, nested loops, Loop manipulation using pass, continue, break, assert and else suite **Array:** introduction, importing and slicing on array, types of array, compare and aliasing. **Strings:** Introduction to String, String Manipulation. **Collection List:** Introduction to List, Manipulating list. **Tuples:** Introduction to Tuples, Manipulating Tuples. **Dictionaries:** Concept of Dictionary, Techniques to create, update & delete dictionary items.

Class	Subject	Februey	March
BCA-II	**Python Programming**	**Functions:** Difference between a Function and a Method, Defining a function, Calling a function, Advantages of functions, Types of functions, Function parameters:-Formal parameters, Actual parameters, Anonymous functions, Global and Local variables **Modules:** Importing module, Creating & exploring modules, Math module, Random module, Time module	**Regular Expressions:** Introduction to Regular Expression, Advantages & Operations, Sequence characters in Regular Expression, Powerful pattern matching and searching, Password, email, url validation using regular expression, Pattern finding programs using regular expression **Exception Handling:** Errors in a Program, Exceptions, Exception handling, Types of Exceptions, User-defined Exceptions

		Object Oriented Programming: Features, Concept of Class & Objects, Constructor, Types of Variables, Namespaces, Types of Methods, Inner Classes, Constructors in Inheritance, Overriding Super Class Constructors and Methods, Types of Inheritance, Abstract Classes and Interfaces, The Super() Method, Operator Overloading, Method Overloading, Method Overriding. **Threads:** Introduction, uses, types, creating threads, thread class methods and synchronization	**Python File Operation:** Types of File, Opening and Closing a File, Reading and writing to files, Manipulating directories **Graphical user interface-** root window, fonts and colors, working with containers, canvas, frame, widgets and its types. **Database connectivity-**Installing MySQLdb module, working with MySQL, Retrieving, inserting, Deleting and Updating rows into table, creating database tables

Teacher Name & Signature **Head of Department**

Vidnyan Mahavidhyalaya Sangola
Department of Computer Science
Teaching Plan

Teacher Name: Miss Dhure M.D **Academic Year :2019-20**

Class	Subject	December	January
BCA-II	**Python Programming**	**Introduction to Python:** Features/Characteristics of Python, Installation and Working with Python, Structure of a Python Program, Writing simple python program, Executing python program using command line window and IDLE graphics window, Python Virtual Machine, Identifiers and Keywords, **Python Data Types:** Python Variables, Data types, Sequences, Sets, Literals, Constants, Type	**Conditional Statements-** if, if-else, nested if –else,**Looping-**for, while, nested loops, Loop manipulation using pass, continue, break, assert and else suite **Array:** introduction, importing and slicing on array, types of array, compare and aliasing. **Strings:** Introduction to String, String Manipulation. **Collection List:** Introduction to List, Manipulating list.

		conversion, I/O Statements, Command line arguments. **Operators-**Arithmetic, Relational, Logical, Boolean, Assignment, Bit wise, Membership, Identity, Operator Precedence and Associativity	**Tuples:** Introduction to Tuples, Manipulating Tuples. **Dictionaries:** Concept of Dictionary, Techniques to create, update & delete dictionary items.

Class	Subject	Februey	March
BCA-II	**Python Programming**	**Functions:** Difference between a Function and a Method, Defining a function, Calling a function, Advantages of functions, Types of functions, Function parameters:-Formal parameters, Actual parameters, Anonymous functions, Global and Local variables **Modules:** Importing module, Creating & exploring modules, Math module, Random module, Time module **Object Oriented Programming:** Features, Concept of Class & Objects, Constructor, Types of Variables, Namespaces, Types of Methods, Inner Classes, Constructors in Inheritance, Overriding Super Class Constructors and Methods, Types of Inheritance, Abstract Classes and Interfaces, The Super() Method, Operator Overloading, Method Overloading, Method Overriding. **Threads:** Introduction, uses, types, creating threads, thread class methods and synchronization	**Regular Expressions:** Introduction to Regular Expression, Advantages & Operations, Sequence characters in Regular Expression, Powerful pattern matching and searching, Password, email, url validation using regular expression, Pattern finding programs using regular expression **Exception Handling:** Errors in a Program, Exceptions, Exception handling, Types of Exceptions, User-defined Exceptions **Python File Operation:** Types of File, Opening and Closing a File, Reading and writing to files, Manipulating directories **Graphical user interface-** root window, fonts and colors, working with containers, canvas, frame, widgets and its types. **Database connectivity-**Installing MySQLdb module, working with MySQL, Retrieving, inserting, Deleting and Updating rows into table, creating database tables

Teacher Name & Signature **Head of Department**

Vidnyan Mahavidhyalaya Sangola
Department of Computer Science
Teaching Plan

Teacher Name: Miss Dhure M.D **Academic Year :2020-21**

Class	Subject	December	January
BCA-II	**Python Programming**	**Introduction to Python:** Features/Characteristics of Python, Installation and Working with Python, Structure of a Python Program, Writing simple python program, Executing python program using command line window and IDLE graphics window, Python Virtual Machine, Identifiers and Keywords, **Python Data Types:** Python Variables, Data types, Sequences, Sets, Literals, Constants, Type conversion, I/O Statements, Command line arguments. **Operators-**Arithmetic, Relational, Logical, Boolean, Assignment, Bit wise, Membership, Identity, Operator Precedence and Associativity	**Conditional Statements-** if, if-else, nested if –else,**Looping-**for, while, nested loops, Loop manipulation using pass, continue, break, assert and else suite **Array:** introduction, importing and slicing on array, types of array, compare and aliasing. **Strings:** Introduction to String, String Manipulation. **Collection List:** Introduction to List, Manipulating list. **Tuples:** Introduction to Tuples, Manipulating Tuples. **Dictionaries:** Concept of Dictionary, Techniques to create, update & delete dictionary items.

Class	Subject	Februey	March
BCA-II	**Python Programming**	**Functions:** Difference between a Function and a Method, Defining a function, Calling a function, Advantages of	**Regular Expressions:** Introduction to Regular Expression, Advantages & Operations, Sequence characters in Regular Expression,

		functions, Types of functions, Function parameters:-Formal parameters, Actual parameters, Anonymous functions, Global and Local variables **Modules:** Importing module, Creating & exploring modules, Math module, Random module, Time module **Object Oriented Programming:** Features, Concept of Class & Objects, Constructor, Types of Variables, Namespaces, Types of Methods, Inner Classes, Constructors in Inheritance, Overriding Super Class Constructors and Methods, Types of Inheritance, Abstract Classes and Interfaces, The Super() Method, Operator Overloading, Method Overloading, Method Overriding. **Threads:** Introduction, uses, types, creating threads, thread class methods and synchronization	Powerful pattern matching and searching, Password, email, url validation using regular expression, Pattern finding programs using regular expression **Exception Handling:** Errors in a Program, Exceptions, Exception handling, Types of Exceptions, User-defined Exceptions **Python File Operation:** Types of File, Opening and Closing a File, Reading and writing to files, Manipulating directories **Graphical user interface-** root window, fonts and colors, working with containers, canvas, frame, widgets and its types. **Database connectivity-**Installing MySQLdb module, working with MySQL, Retrieving, inserting, Deleting and Updating rows into table, creating database tables

Teacher Name & Signature **Head of Department**

Vidnyan Mahavidhyalaya Sangola
Department of Computer Science
Teaching Plan

Teacher Name: Miss Dhure M.D **Academic Year :2021-22**

Class	Subject	December	January
BCA-I	**Introduction to python programming**	**Introduction:** Features of python, steps for execution of python program, python virtual machine, memory management, garbage collection, Installation of python software, setting the path to operating system environment, writing the first python program, executing a python program.	**Datatypes in python**: Datatypes, type conversion-implicit and explicit, comments, literals, constants, Identifiers, naming conventions, operators, operator precedence and associativity, input and output statements, command-line arguments. **ControlStatements:** if statement, if..else statement, if..elif..else statement, while loop, for loop, else suite, infinite loop, nested loops,

Class	Subject	Februey	March
BCA-I	**Introduction to python programming**	word indentation, break statement, continue statement, pass statement, assert statement, return statement. **Arrays in Python:** Concept of array, advantages of array, creating an array, importing array module, indexing and slicing on arrays, methods of array module, types of arrays.	**String, List, Tuple, Set and Dictionary:**Creating string, manipulating different operations on string, creating list, manipulating different operations on list, list comprehensions, creating tuple, manipulating different operations on tuple, creating set, manipulating different operations on set, creating dictionary, manipulating different operations on dictionary.

Teacher Name & Signature **Head of Department**

Dr.Ganpatrao Deshmukh Mahavidhyalaya Sangola

Department of Computer Science

Teaching Plan

Teacher Name: Miss Dhure M.D **Academic Year :2022-23**

Class	Subject	December	January
BCA-I	Introduction to python programming	**Introduction:** Features of python, steps for execution of python program, python virtual machine, memory management, garbage collection, Installation of python software, setting the path to operating system environment, writing the first python program, executing a python program.	**Datatypes in python**: Datatypes, type conversion-implicit and explicit, comments, literals, constants, Identifiers, naming conventions, operators, operator precedence and associativity, input and output statements, command-line arguments. **ControlStatements:** if statement, if..else statement, if..elif..else statement, while loop, for loop, else suite, infinite loop, nested loops,

Class	Subject	Februey	March
BCA-I	Introduction to python programming	word indentation, break statement, continue statement, pass statement, assert statement, return statement. **Arrays in Python:** Concept of array, advantages of array, creating an array, importing array module, indexing and slicing on arrays, methods of array module, types of arrays.	**String, List, Tuple, Set and Dictionary:**Creating string, manipulating different operations on string, creating list, manipulating different operations on list, list comprehensions, creating tuple, manipulating different operations on tuple, creating set, manipulating different operations on set, creating dictionary, manipulating different operations on dictionary.

Teacher Name & Signature **Head of Department**