**KENDRIYA VIDYALAYA SANGATHAN (MUMBAI REGION)**

**Session Ending Examination (2018-19)**

**Class XI**

**Informatics Practices (Code 065)**

**Blue Print**

**Max Marks: 70 Time Duration: 3 Hrs.**

|  |  |  |  |  |  |  |  |
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| **UNIT** | **CHAPTER** | **VSA**  **1 Mark** | | **SA I**  **2 Marks** | **SA II**  **3 Marks** | **LA**  **4 Marks** | **TOTAL**  **MARKS** |
| **1** | **PROGRAMMING AND COMPUTATIONAL THINKING** | | | | | |  |
|  |  | | | | | |  |
| Describe a computer system and mobile system, CPU, memory, hard disk, I/O, battery, power, transition from a calculator to a computer. | 3 | | 1 | - | - | 05 |
|  | **BASIC PYTHON PROGRAMMING** | | | | | |  |
| Familiarization with the basics of Python programming: a simple “hello world" program, process of writing a program, running it, and print statements; simple data-types: integer, float, string | | 2 | 1 | - | - | 04 |
| Introduce the notion of a variable, and methods to manipulate it (concept of L-value and R-value) | | 1 | - | - | - | 01 |
| Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence. | | - | 1 | - | - | 02 |
|  | **CONTROL FLOW IN PYTHON AND PROGRAMMING** | | | | | |  |
| Conditional statements: if, if-else, if-elif-else, nested-if | | - | 1 | - | - | 02 |
| Notion of iterative computation and control flow: for, while, flowcharts, decision trees and pseudo code; write a lot of programs: interest calculation, EMI, tax calculation (examples from GST), standard deviation, correlation | | 1 | 2 | 1 | - | 06 |
|  | **LISTS & DICTIONARIES** | | | | | |  |
| Lists and dictionary: finding the maximum, minimum, mean; linear search on a list of numbers, and counting the frequency of elements in a list using a dictionary. | | 1 | 1 | 1 | - | 06 |
|  |  | | | | | | |
|  | **TEXT HANDLING** | | - | 1 | - | - | 02 |
|  | **PYTHON MODULES** | | - | 1 | - | - | 02 |
| 2 | **DATA HANDLING – (DH-1)** | | | | | |  |
|  | Introduction to Python Pandas | | - | 3 | - | - | 08 |
|  | Python Pandas II – Dataframes and other operations | | - | 4 | - | - | 08 |
|  | Data Transfer between Files, SQL Databases and Dataframes | | - | 1 | - | - | 02 |
| 3 | **DATA MANAGEMENT – (DM-1)** | | | | | |  |
|  | Relational Databases | | 2 | - | - | - | 02 |
|  | Simple Queries in SQL | | 4 | - | - | - | 04 |
|  | Table Creation and Data Manipulation Commands | | - | 1 | - | - | 02 |
|  | Table Joins and Indexes in SQL | | - | 1 | - | - | 02 |
|  | **SOCIETY, LAW AND ETHICS- (SLE-1) CYBER SAFETY** | | | | | |  |
|  | Cyber Safety, Appropriate usage of Social Networks, Safely accessing websites, Safely communicating data | | 6 | 2 | - |  | 10 |
|  | GRAND TOTAL | | 1 X 17 = 17 | 2 X 25 = 50 | 3 X 1 = 03 | - | 70 |