## Syllabus of Computational Thinking

1 Variables, Initialization, Iterators, Filtering, Datatypes, Flowcharts, Sanity of data 2 Iteration, Filtering, Selection, Pseudocode, Finding max and min, AND operator 3 Multiple iterations (non-nested), Three prizes problem, Procedures, Parameters, Side effects, OR operator 4 Nested iterations, Birthday paradox, Binning 5 List, Insertion sort 6 Table, Dictionar 7 Graph, Matrix 8 Adjacency matrix, Edge labelled graph 9 Backtracking, Tree, Depth First Search (DFS), Recursion 10 Object oriented programming, Class, Object, Encapsulation, Abstraction, Information hiding, Access specifiers 11 Message passing, Remote Procedure Call (RPC), Cache memory, Parallelism, Concurrency, Polling, Preemption, Multithreading, Producer Consumer, Atomicity, Consistency, Race condition, Deadlock, Broadcasting		
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Top-down approach, Bottom-up approach, Decision tree, Numerical prediction, Behaviour analysis, Classification