Interview Topic -

1. **DSA-**
    A. Array
        1) Math
        2) sorting (bubble,insertion, Selection ,Merge ,Quick ,Heap)
        3) searching

    B. String
        1) frequency_array[26]
        1) pattern_matching->KMP/robin_karp

    C. Sliding window / two pointer /prefix sum/ robin_karp(rolling hash)
    D. Link List
    E. Stack /monotonic stack
    F. Queue
    G. Binary Search
    H. Bit Manipulation

    I. Recursion /Backtracking
    J. Greedy Algorithms
    K. Dynamic Programming
        1) Knapsack (0/1, bounded, unbounded)
        2) 1D DP(fibonacci ,min_step , Kadane algo(largest sum contiguous subarray))
        3) LCS (longest common subsequence)
        4) LIS (longest increasing subsequence)
        5) MCM (matrix chain multiplication)
        6) 2D DP(grid dp)
        7) Advance DP(dp+binary_search+tree+geometry+3D+bitmasking+graph+etc)

    L. Tree
        1) traversal(BFS/DFS)
        2)Binary_Tree
        3)Binary_Search_Tree
        4)AVL Tree
        5) Red-Black Tree
        6) B-Tree
    M. Hashing /Heap (Priority_Queue)

N. Graph (bfs,dfs,toposort, shortest_path/cost)
O. Minimum_Spanning_Tree (MST)
P. Disjoint_Set /Union (DSU)
Q. Trie Data Structure (TDS)

R. etc/cp
    1) Number Theory /Modular_Arithmetics
    2) Square root decomposition
    3) Segment Tree
    4) Fenwick Tree
    5) Policy based Data Structure (PBDS)

2. Theory Subjects

A. Operating System (Linux/ Windows)
B. DBMS (SQL/NoSQL command)
C. Computer Network

3. System Design

A. Low Level Design (Design Patterns/ OOPs Concepts /Solid Principles /UML)
B. High Level Design

(Scalability/ Performance/ Latency and Throughput /Consistency / Availability /Partition Tolerance /CAP Theorem /Domain Name System /Content Delivery Network /Load Balancers and Reverse Proxy /Microservices /Databases /Caching /Message Queues

4. Work Experience /Technology Domain

For Vikas-> Full Stack Developer (MERN Stack)

A. Project Introduction
B. Modules description /Functionality
C. Tools /Technology /Platform

Refer to - interviewBit