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| **Sl. No** | **Syllabus** | **Curriculum** | **Deployment Strategy and**  **Tool** | **Cross-cutting issues**  **integrated** | **PO, PSO and CO** | **Attainment Verification** |
| 1. | GRAPH THEORY AND COMBINATORICS | * Graph Theory is ultimately the study of relationships. Given a set of nodes & connections, which can abstract anything from city layouts to computer data, graph theory provides a helpful tool to quantify & simplify the many moving parts of dynamic systems * Combinatorics, also called combinatorial mathematics, the field of mathematics concerned with problems of selection, arrangement, and operation within a finite or that something will happen. * Combinatorial problems arise in many areas of pure mathematics, notably in algebra, probability theory, topology, and geometry, as well as in its many application areas.Combinatorics is used frequently in computer science to obtain formulas and estimates in the analysis of algorithms.. | 1. Chalk and   Talk method   1. PPT | * Business   Ethics   * Human   values | PO1:Engineering Knowledge  PO2:Problem Analysis  PO3:Design/Development Of Solutions  PO5:Modern Tool Usage |  |
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|  |  | CO1:Describe the Concept of graph theory along with the properties.  CO2:Apply graphs as representation tools in a network analysis. |
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|  |  | Solve the Combinatory & Permutations related problems.  CO3:Solve Recurrence relation and Generating Functions |
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