

POST GRADUATE GOVERNMENT COLLEGE SECTOR-46, CHANDIGARH

Department of Computer Applications

Discrete Mathematics

BCA 5th Semester

Session 2023-2024

July 2023 to Dec 2023

| | | | |
|----|--|------------|---|
| 1 | 21.07.2023 | 28.07.2023 | Set Theory: Relations and Functions: Set Notation and Description, subset, basic set operations, Venn Diagrams, laws of set theory, partitions of sets, min sets, |
| 2 | 29.07.2023 | 05.08.2023 | Duality principle, basic definitions of relations and functions, graphics of relations, properties of relations: injective, surjective and bijective functions, compositions. |
| 3 | 07.08.2023 | 12.08.2023 | Recurrence: Recurrence Relations and Recursive Algorithms – Linear-Recurrence Relations with Constant Coefficients; |
| 4 | 14.08.2023 | 19.08.2023 | Homogeneous Solutions: Particular Solution, Total Solution. Solution by the Method of Generating functions. |
| 5 | 21.08.2023 | 26.08.2023 | Graph Theory: Graph and planar graphs – Basic Terminology, Multi-graphs, |
| 6 | 28.08.2023 | 02.09.2023 | Weighted Graphs, Paths and Circuits, Shortest Paths, Eulerian Paths and Circuits. |
| 7 | 04.09.2023 | 09.09.2023 | Travelling Salesman Problem, Planar Graphs. |
| 8 | 11.09.2023 | 16.09.2023 | Automata Theory: Finite State Machines–Equivalent Machines |
| 9 | 18.09.2023 | 23.09.2023 | Finite State Machines as language Recognizers |
| 10 | 25.09.2023 | 30.09.2023 | Analysis of Algorithms - Time Complexity, Complexity of Problems |
| 11 | 03.10.2023 | 07.10.2023 | Recurrence Relation and Recursive Algorithms practice |
| 12 | Mid-Semester Test w.e.f.09.10.2023 till 16.10.2023 (tentative) | | |
| 13 | 17.10.2023 | 27.10.2023 | Revision Unit 1 SET and Relations |
| 14 | 31.10.2023 | 04.11.2023 | Revision Unit 2 Graph theory |
| 15 | 06.11.2023 | 11.11.2023 | Revision Unit 3 Finite machine Automata |
| 16 | 14.11.2023 | 18.11.2023 | Revision Unit 4 Analysis of Algorithms |

Signature of the Subject Teacher

