

TEACHING PLAN

Course Title: Topology	Duration of Examination: 3 hours
Course Code: MAMT- PGAMT2C001T	Maximum Marks: 100
Course Instructor's Names: Dr. Kamlesh Kumar & Dr. Deep Singh	
Lecture 1	Introduction to topology with examples
Lecture 2	Topological spaces, Neighbourhood and Interior
Tutorial 1	Assignment/ Discussion/Exercises
Lecture 3	Limit point of a set, Closure of a set
Lecture 4	Boundary points, Exterior points
Tutorial 2	Assignment/ Discussion/Exercises
Lecture 5	Basis for topology and theorems based on basis
Lecture 6	Continuity in topological spaces and theorems based on continuity
Tutorial 3	Assignment/ Discussion/Exercises
Lecture 7	Open mapping and closed mapping and some theorems
Lecture 8	Subspaces, Homeomorphism and some theorems
Tutorial 4	Assignment/ Discussion/Exercises
Lecture 9	Introduction to connectedness in topological space
Lecture 10	Set of disconnectedness and some examples
Tutorial 5	Assignment/ Discussion/Exercises
Lecture 11	Theorems based on disconnected sets
Lecture 12	Continuity and Connectedness based theorems
Tutorial 6	Assignment/ Discussion/Exercises
Lecture 13	Components in topological spaces
Lecture 14	Introduction to Totally disconnected space
Tutorial 7	Assignment/ Discussion/Exercises
Lecture 15	Theorems based on Totally disconnected sets
Lecture 16	Locally connected space and some theorems
Tutorial 8	Assignment/ Discussion/Exercises
Lecture 17	Introduction to compact spaces and examples
Lecture 18	Theorems based on Compact sets
Tutorial 9	Assignment/ Discussion/Exercises
Lecture 19	Compactness and continuity
Lecture 20	Some properties related to compactness
Tutorial 10	Assignment/ Discussion/Exercises
Lecture 21	One point compactification
Lecture 22	Topic contd.

Tutorial 11	Assignment/ Discussion/Exercises
Lecture 23	The cantor set and examples
Lecture 24	Topic contd.
Tutorial 12	Assignment/ Discussion/Exercises
Lecture 25	Finite products and examples
Lecture 26	Topic contd.
Tutorial 13	Assignment/ Discussion/Exercises
Lecture 27	Arbitrary products and examples
Lecture 28	Topic contd.
Tutorial 14	Assignment/ Discussion/Exercises
Lecture 29	Comparison of topologies
Lecture 30	Topic contd.
Tutorial 15	Assignment/ Discussion/Exercises
Lecture 31	Quotient spaces
Lecture 32	Topic contd.
Tutorial 16	Assignment/ Discussion/Exercises
Lecture 33	Separation axioms for T_0 spaces
Lecture 34	Topic contd.
Tutorial 17	Assignment/ Discussion/Exercises
Lecture 35	Separation axioms for T_0 spaces
Lecture 36	Topic contd.
Tutorial 18	Assignment/ Discussion/Exercises
Lecture 37	Separation axioms for T_0 spaces
Lecture 38	Topic contd.
Tutorial 19	Assignment/ Discussion/Exercises
Lecture 39	Separation axioms for T_0 spaces
Lecture 40	Topic contd.
Tutorial 20	Assignment/ Discussion/Exercises