DEPARTMENT OF MATHEMATICS

COURSE CURRICULUM & MARKING SCHEME

M.Sc. MATHEMATICS
Semester - II

SESSION : 2024-25

ESTD: 1958

GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG, 491001 (C.G.)

(Former Name – Govt. Arts & Science College, Durg)

NAAC Accredited Grade A+, College with CPE - Phase III (UGC), STAR COLLEGE (DBT)

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DEPARTMENT OF MATHEMATICS

GOVT. V.Y.T. PG. AUTONOMOUS COLLEGE DURG (C.G.)

Approved syllabus for M.Sc. Mathematics by the members of Board of Studies for the Sessions 2024 - 25

The Syllabus with the paper combinations is as under

Semester II

Paper I: MMT 201 - Advanced Abstract Algebra (II)	**Paper II: MMT 202 -Real Analysis (II)**
Paper III:MMT 203 – Topology (II)	**Paper IV: MMT 204 - Complex Analysis (II)**
Paper V: MMT 205 - Advanced Discrete Mathematics (II)	

The Syllabus for M.Sc. Mathematics is hereby approved for the sessions 2024 - 25

GENERAL INSTRUCTIONS FOR STUDENTS

1. The candidate has to obtain minimum 20% marks in each theory paper and internal assessment separately.
2. The candidate has to secure minimum 36% marks as an aggregate in order to pass that semester examination.
3. The internal assessment shall include class test, home assignment and seminar presentation.
4. Internal Assessment Examination will be as follows :
   i. Internal Test in each paper (20 marks)
   ii. Seminar (Power point presentation) in any one of the paper (20 marks)
   iii. Assignment in each of the remaining papers (excluding the paper of Seminar. (20 marks)
   iv. Average of marks obtained in internal test + seminar in any one paper and marks obtained in internal test + assignment in rest of the papers will be calculated and taken into consideration.

5. There shall be one seminar in each semester. In each semester, the paper in which seminar has to be presented will be allotted randomly .The marking of seminar shall be in terms of hard copy submission (10 marks) and presentation and open discussion 10 marks. In seminar the marks taken in to consideration will be the average marks given by two examiners.

Chairperson / H.O.D - Dr. Padmavati 6/7/24 Subject Expert - Dr. Madhu Shrivastava 6-07-24 Subject Expert - Dr. Shabnam Khan Subject Expert - Dr. S. K. Bhatt **Representative Members** 1. Dr. Anil Kashyap - 2. Shri A. K. Pandey - 3. Dr. Mayur Puri Goswami -	**Faculty members:** Dr. M.A. Siddiqui – Dr. Rakesh Tiwari – Dr. (Smt.) Prachi Singh –

DIRECTIVES FOR STUDENTS, FACULTY AND EXAMINERS

Question Paper Format and Distribution of Marks for PG Semester Examination

Question paper format for the Post-Graduate Examination has been revised from the Session 2018-19. The revised format will be applicable for all the question papers of Semester I, II, III & IV. The following are the main points of the new format:

1. The question paper will be of **80 marks** (as before)
2. Questions will be asked Unit-wise in each question paper.
3. From each Unit, the questions will be asked as follows :

Very short answer type question
(Answer in one or two sentences) **(02 Marks)**

Very short answer type question
(Answer in one or two sentences) **(02 Marks)**

Short answer type question **(04 Marks)**

Long answer type questions **(12 Marks)**

Type of Question	Unit-I	Unit-II	Unit-III	Unit-IV
Very Short (2 Questions)	2 x 2 = 4 Marks	2 x 2 = 4 Marks	2 x 2 = 4 Marks	2 x 2 = 4 Marks
Short (1 Question)	1 x 4 = 4 Marks	1 x 4 = 4 Marks	1 x 4 = 4 Marks	1 x 4 = 4 Marks
ng answer (1 Question)	1 x 12 = 12 Marks	1 x 12 = 12 Marks	1 x 12 = 12 Marks	1 x 12 = 12 Marks

e:

1. Question no. 1 and Question 2 will be compulsory.
2. Question no. 3 and 4 will consist of 2 optional questions of which one has to be attempted.
3. As mentioned above, two compulsory very short answer type questions (2+2 marks), one short answer type question with internal choice (4 marks) and one

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long answer type question with internal choice (12 marks) will be asked from each unit.

Thus there will be questions of 20 marks from each unit and of total 80 marks from all the four units of the syllabus/syllabi.

4The students are required to study the content mentioned in the curriculum exhaustively.

CREDIT ALLOTMENTS

Theory 80 marks= 04 Credits

Internal Assessment 20 marks = 01 credit

Theory Paper + Practical = 05 credits (04+01)

Chairperson / H.O.D - Dr. Padmavati Subject Expert - Dr. Madhu Shrivastava Subject Expert - Dr. Shabnam Khan Subject Expert - Dr. S. K. Bhatt **Representative Members** 1. Dr. Anil Kashyap - 2. Shri A. K. Pandey - 3. Dr. Mayur Puri Goswami -	**Faculty members:** Dr. M.A. Siddiqui – Dr. Rakesh Tiwari – Dr. (Smt.) Prachi Singh –

Syllabus and Marking Scheme for M.Sc. Mathematics Second Semester Session 2024-25

Paper No.	Title of the Paper	Marks Allotted in Theory		Marks Allotted in Internal Assessment		Credits
		Max	Min	Max.	Min.	
I	Advanced Abstract Algebra (II)	80	16	20	04	05
II	Real Analysis (II)	80	16	20	04	05
III	Topology	80	16	20	04	05
IV	Complex Analysis (II)	80	16	20	04	05
V	Advanced Discrete Mathematics (II)	80	16	20	04	05
	Total	400		100		25

05 Theory papers - 400

05 Internal Assessments -100

Total Marks- 500

Note: 20 marks = 01 credit in Theory Papers.

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Subject Expert - Dr. Madhu Shrivastava 6-07-24

Subject Expert - Dr. Shabnam Khan

Subject Expert - Dr. S. K. Bhatt

Representative Members

1. Dr. Anil Kashyap -
2. Shri A. K. Pandey -
3. Dr. Mayur Puri Goswami -

Faculty members:

Dr. M.A. Siddiqui –

Dr. Rakesh Tiwari –

Dr. (Smt.) Prachi Singh –

PG Department of Mathematics

Program Outcomes:

PO No.	Program outcomes upon completion of the M. Sc. Degree program, the student will be able to
PO No. - 1	Pursue higher studies in mathematics in reputed institute of our country and clear Competitive exams like SET / NET / TET etc.
PO No. – 2	Read and identify mathematical and computational methods in order to solve comprehensive problems in several competitive examinations.
PO No. – 3	Well prepared to take jobs in schools and colleges as Mathematic Teachers and Professors, Software Industries, Research and Development Organizations.
PO No.- 4	Learn and apply Mathematics in real life situations aiming at service to the society.

Program Specific Outcomes:

PSO No.	Program specific outcomes :upon completion of the M. Sc. Degreeprogram, the student will be able to
PSO - 1	Understand the fundamental axioms in mathematics and capable todevelop ideas based on them.
PSO – 2	Inculcate mathematical reasoning and develop own learning capacity.
PSO – 3	Explain the core ideas and the techniques of mathematics anddevelopabstract mathematical thinking.
PSO - 4	Assimilatethe logical approach to take decision in complicated situations.
PSO - 5	Prepare and motivate for research studies in mathematics and relatedfields.

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Learning Outcomes:

After learning this course students are able to recognize and explain all about algebra.

Course Title	M. Sc. previous,Advance Abstract Algebra
CO No.	Course Outcomes - This course will enable the student to :
CO No. – 1	Remember properties of group especially normal series and use of series in Jorden Holder Theorem.
CO No. – 2	Understand field extension with types of extension as- algebraic, transcendental, separable, inseparable and normal extension.
CO No.- 3	Apply Galois theory and evaluate general equation by radicals. Recall Linear transformation, canonical form and nilpotent transformation, Jorden blocks and Jorden forms.
CO No.- 4	Analyze module, Noetherian, Artinian modules and examples, Hilbert basis theorem and WedderzburnArtin theorem.

Learning Outcomes:

Student able to go to deep analytic approach which is elegant proves of research.

Course Title	M. Sc. previous,Real Analysis
CO No.	Course Outcomes - This course will enable the student to :
CO No. – 1	Remember sequences and series of functions and their convergence, various test for convergence.
CO No. – 2	Analyze Function of several variables, derivatives in open subsets, derivatives of higher order, partition of unity and Stock's Theorem.
CO No.- 3	Understand Riemman and Stieltjes integral and its properties.
CO No.- 4	Understand Idea of measures, measurable sets, Borel and Lebesgue measures.

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Learning Outcomes:

Student able to go to deep concept of topological spaces which is useful in research.

Course Title	M. Sc. previous,Topology
CO No.	Course Outcomes This course will enable the student to :
CO No. – 1	Remember the concept of topology and algebraic topology.
CO No. – 2	Apply the concept of separation axioms, connectedness, compactness and related topics.
CO No.- 3	Understand the product topology, embedding, metrization and paracompactness.
CO No.- 4	Analyze Nets, Filters and ultra filters. Fundamental group and covering spaces and prove some related theorems.

Learning Outcomes:

Student able to go to deep concept valued function and their analytic approach in mathematics.

Course Title	M. Sc. previous,Complex Analysis
CO No.	Course Outcomes This course will enable the student to :
CO No. – 1	Remember the concept and consequences of analyticity and the Cauchy Riemman equations and results on harmonic and entire functions including the fundamental theorem of algebra.
CO No. – 2	Understand the application of the power series, expansion of analytic functions.
CO No.- 3	Analyze Conformal mapping and bilinear transformation and their properties.
CO No.- 4	Apply the Cauchy residue theorem to evaluate integral and sum series, analytic continuation and its properties, canonical products.

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Learning Outcomes:

Student able to learn how to apply discrete mathematics in the field of engineering.

Course Title	M. Sc. previous,Advance Discrete Mathematics
CO No.	Course Outcomes
CO No. – 1	Understand Algebraic structure, semigroups, monoids and operations on strings. Specially using in concatenation operations
CO No. – 2	Remember various types of grammars, Application of pumping lemma, Polish Notations.
CO No.- 3	Create Finite autometa acceptors, nondeterministic finite autometa.
CO No.- 4	Analyze mean terms, max terms, Boolean forms, Karnough mappings and minimization of Boolean function, Partial order relations, Lattices and its various types.

M. Sc. Mathematics (Second Semester)
2024 – 2025

Code- MMT 201
PAPER-I
Advanced Abstract Algebra (II)

Max. Marks. 80

Unit-I Modules- Cyclic modules. Simple modules. Semi-simple modules. Schur's Lemma. Free modules. Noetherian and Artinian modules and Rings-Hilbert basis theorem. Wedderburn Artin theorem. Uniform modules. Primary modules.

Unit-II Linear Transformations - Algebra of linear transformation. Singular and non-singular transformations. Characteristic roots. Matrices and linear transformations.

Unit-III Canonical Forms - Similarity of linear transformations. Invariant subspaces. Reduction to triangular forms. Nilpotent transformations. Index of Nilpotency. Invariants of a nilpotent transformation. The primary decomposition theorem. Jordan blocks and Jordan forms.

Unit-IV Smith normal form over a principal ideal domain and rank. Fundamental structure theorem for finitely generated modules over a Principal ideal domain and its applications to finitely generated abelian groups. Rational Canonical from. Generalized Jordan form over any field .

Books Recommended:

1. P.B. Bhattacharya, S.K.Jain, S.R.Nagpaul : Basic Abstract Algebra, Cambridge University press
2. I.N. Herstein : Topics in Albegra, Wiley Eastern Ltd.
3. QuaziZameeruddin and Surjeet Singh : Modern Algebra

References:

1. M.Artin, Algeabra, Prentice -Hall of India, 1991.
2. P.M. Cohn, Algebra,Vols. I,II &III, John Wiley & Sons, 1982,1989,1991.

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3. N.Jacobson, Basic Algebra, Vols. I & II,W.H. Freeman, 1980 (also published by Hindustan Publishing Company).
4. S.Lang, Algebra, 3rd edition, Addison-Wesley, 1993.
5. D.S.Malik, J.N.Mordeson, and M.K.Sen, Fundamentals of Abstract Algebra, Mc Graw-Hill, International Edition,1997.
6. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi,2000.
7. S.K.jain,A. Gunawardena and P.B Bhattacharya, Basic Linear Algebra with MATLAB, Key College Publishing (Springer-Verlag),2001.
8. S.Kumaresan, Linear Algebra, A Geometric Approach, Prentice-Hall of India, 2000.
9. Vivek Sahai and Vikas Bist, Algebra, Narosa Publishing House, 1999.
10. J.P. Escofier, Galois theory, GTM Vol.204, Springer, 2001.
11. T.Y. Lam, lectures on Modules and Rings, GTM Vol. 189, Springer-Verlag,1999.

Chairperson / H.O.D - Dr. Padmavati 6/7/24	**Faculty members:**
Subject Expert - Dr. Madhu Shrivastava 6-07-24	Dr. M.A. Siddiqui –
Subject Expert - Dr. Shabnam Khan	Dr. Rakesh Tiwari –
Subject Expert - Dr. S. K. Bhatt	Dr. (Smt.) Prachi Singh –
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M. Sc. Mathematics (Second Semester)
2024 – 2025

Code- MMT 202
PAPER-II
Real Analysis (II)

Max.Marks.80

Unit-I Definition and existence of Riemann-Stieltjes Integral. Properties of the integral. Integration and differentiation. The fundamental theorem of calculus. Integration of Vector-valued functions. Rectifiable curves.

Unit-II Lebesgue outer measure. Measurable sets. Regularity. Measurable functions. Borel and Lebesgue measurability. Non-measurable sets. Integration of non-negative functions. The general integral. Integration of series.

Unit-III Measures and outer measures, Extension of a measure. Uniqueness of extension. Completion of a measure. Measure spaces. Integration with respect to a measure. Riemann and Lebesgue Integrals.

Unit-IV The four derivatives. Functions of bounded variation. Lebesgue differentiation theorem. Differentiation and integration. The L^p-spaces. Convex functions. Jensen's inequality. Holder and Minkowski inequalities. Completeness of L^p. Convergence in measure. Almost uniform convergence.

Recommended Books:

1. Walter Rudin, Principles of Mathematical Analysis (3rd edition) McGraw-Hill, Kogakusha, 1976, International student edition.
2. Real Analysis by H. L. Roydon.

References:

1. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
2. Gabriel Klambauer, Mathematical Analysis, Marcel Dekkar,Inc. New York, 1975.
3. A.J. White, Real Analysis; an introduction, Addison-Wesley Publishing Co.,Inc.,1968.
4. G. de Barra, Measure Theory and Integration, Wiley Eastern Limited, 1981.

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5. E. Hewitt and K. Stromberg. Real and Abstract Analysis, Berlin, Springer, 1969.
6. P.K. Jain and V.P. Gupta, Lebesgue Measure and Integration, New Age International (P) Limited Published, New Delhi, 1986 Reprint 2000).
7. I.P. Natanson, Theory of Functions of a Real Variable. Vol. 1, Frederick Ungar Publishing Co., 1961.
8. H.L. Royden, Real Analysis, Macmillan Pub.Co.Inc.4th Edition, New York .1962.
9. Richard L. Wheeden and Antoni Zygmund, Measure and Integral: An Introduction to Real Analysis, Marcel Dekker Inc.1977.
10. J.H. Williamson, Lebesgue Integration, Holt Rinehart and Winston, Inc. New York. 1962.
11. A. Friedman, Foundations of Modern Analysis, Holt, Rinehart and Winston, Inc., N.Y. 1970.
12. P.R. Halmos, Measure Theory, Van Nostrand, Princeton, 1950.
13. T.G. Hawkins, Lebesgue's Theory, of Integration: Its Origins and Development, Chelsea, New York, 1979.
14. K.R. Parthasarathy, Introduction to Probability and Measure, Macmillan Company of India Ltd., Delhi, 1977.
15. R.G. Bartle, The Elements of Integration, J. Wiley & Sons, Inc. New York, 1966.
16. Serge Lang, Analysis I & II, Addison-Wesley Publishing Company, Inc. 1969.
17. Inder K. Rana, An Introduction to Measure and Integration, Norosa Publishing House, Delhi, 1997.

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M. Sc. Mathematics (Second Semester)
2024 – 2025

Code- MMT 203
PAPER-III
Topology (II)

Max.Marks.80

Unit-I Product Topology:
Product spaces, Projection maps, Tychonoff product topology in terms of standard sub-base and its characterizations, Connectedness and product spaces, Compactness and product spaces (Tychonoff's theorem), Countability and product spaces.

Unit-II Embedding and Metrization:
Embedding and metrization, Embedding lemma and Tychonoff embedding, The Urysohn metrization theorem, Local finiteness.

Unit-III Nets & Filters:
Directed Set, Nets, Topology and convergence of nets, Hausdorffness and nets, Compactness and nets, Finite Intersection Property, Filters and their convergence, Canonical way of converting nets to filters and vice-versa.

Unit-IV Advanced Topological Theorems:
Ultrafilters and compactness. Paracompactness, The Nagata-Smirnov metrization theorem, The Smirnov metrization theorem.

Recommended Books:

1. K.D. Joshi, Introduction to General Topology, Wiley Eastern Ltd., 1983.

References:

1. J. Dugundji, Topology, Allyn and Bacon, 1966 (reprinted in India by Prentice Hall of India Pvt. Ltd.).
2. George F.Simmons, Introduction to Topology and modern Analysis, McGraw-Hill Book Company, 1963.
3. J.Hocking and G Young, Topology, Addison-Wiley Reading, 1961.
4. J.L. Kelley, General Topology, Van Nostrand, Reinhold Co., New York,1995.
5. L. Steen and J. Seebach, Counter examples in Topology, Holt, Rinehart and Winston, New York, 1970.
6. W.Thron, Topologically Structures, Holt, Rinehart and Winston, New York,1966.
7. N. Bourbaki, General Topology Part I (Transl.),Addison Wesley, Reading, 1966.
8. R. Engelking, General Topology, Polish Scientific Publishers, Warszawa, 1977.
9. W. J. Pervin, Foundations of General Topology, Academic Press Inc. New York,1964.

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10. E. H. Spanier, Algebraic Topology, McGraw-Hill, New York,1966.
11. S. Willard, General Topology, Addison-Wesley, Reading, 1970.
12. Crump W.Baker, Introduction to Topology, Wm C. Brown Publisher, 1991.
13. Sze-Tsen Hu, Elements of General Topology, Holden-Day,Inc.1965.
14. D. Bushaw, Elements of General Topology, John Wiley & Sons, New York, 1963.
15. M.J. Mansfield, Introduction to Topology, D.Van Nostrand Co. Inc.Princeton,N.J.,1963.
16. B. Mendelson, Introduction to Topology, Allyn & Bacon, Inc., Boston,1962.
17. C. Berge, Topological Spaces, Macmillan Company, New York,1963.
18. S.S. Coirns, Introductory Topology, Ronald Press, New York, 1961.
19. Z.P. Mamuzic, Introduction to General Topology, P. NoordhoffLtd.,Groningen, 1963.
20. Seymour Lipschutz, General Topology, Tata McGraw Hill Publishing Company Ltd. (Schaum's out Lines.)

Chairperson / H.O.D - Dr. Padmavati 6/7/24 Subject Expert - Dr. Madhu Shrivastava 6-07-24 Subject Expert - Dr. Shabnam Khan Subject Expert - Dr. S. K. Bhatt **Representative Members** 1. Dr. Anil Kashyap - 2. Shri A. K. Pandey - 3. Dr. Mayur Puri Goswami -	**Faculty members:** Dr. M.A. Siddiqui – Dr. Rakesh Tiwari – Dr. (Smt.) Prachi Singh –

M. Sc. Mathematics (Second Semester)
2024 – 2025

Code- MMT 204
PAPER-IV
Complex Analysis (II)

Max. Marks. 80

Unit-I Gamma function and its properties. Riemann Zeta function. Riemann's functional equation. Runge's theorem. Mittag-Leffler's theorem.

Unit-II Analytic Continuation. Uniqueness of direct analytic continuation. Uniqueness of analytic continuation along a curve. Power series method of analytic continuation. Schwarz Reflection principle. Monodromy theorem and its consequences. Harmonic functions on a disk. Harnack's inequality and theorem.

Unit-III Dirichlet Problem. Green's function. Canonical products. Jensen's formula. Poisson-Jensen formula. Hadamard's three circles theorem. Order of an entire function. Exponent of Convergence. Borel'stheorem,. Hadamard's factorization theorem.

Unit-IV The range of an analytic function. Bloch's theorem. The Little Picard theorem. Schottky's theorem. Montel Caratheodory and the Great picard theorem. Univalent functions. Bieberbach'sconjecture (Statement only) and the "1/4-theorem".

Recommended Books:

1. L.V. Ahlfors: Complex Analysis, MCGraw - Hill, 1979.
2. D. Sarason: Complex Function Theory, Hindustan Book Agency, Delhi, 1994.
3. J. B. Conway: Functions of one Complex variable, Springer-Verlag, International student-Edition, Narosa Publishing House, 1980.
4. H. K. Pathak, Complex Analysis and Applications, Springer, 2019.

References:

1. H.A. Priestly, Introduction to Complex Analysis, Clarendon Press, Oxford 1990.
2. Liang-shin Hahn & Bernard Epstein, Classical Complex Analysis, Jones and Bartlett Publishers International, London, 1996.
3. S. Lang, Complex Analysis, Addison Wesley, 1977.

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4. Mark J.Ablowitz and A.S. Fokas, Complex Variables: Introduction and Applications, Cambridge University press, South Asian Edition, 1998.
5. W.H.J. Fuchs, Topics in the Theory of Functions of one Complex Variable, D.Van Nostrand Co., 1967.
6. C.Caratheodory, Theory of Functions (2 Vols.) Chelsea Publishing Company, 1964.
7. M.Heins, Complex Function Theory, Academic Press, 1968.
8. Walter Rudin, Real and Complex Analysis, McGraw-Hill Book Co., 1966.
9. W.A. Veech, A Second Course in Complex Analysis, W.A. Benjamin, 1967..
10. S.Ponnusamy, Foundations of Complex Analysis, Narosa Publishing House, 1997.

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M. Sc. MATHEMATICS (Second Semester)
2024 – 2025

Code- MMT 205
PAPER-V
Advanced Discrete Mathematics (II)

Max. Marks. 80

Unit-I Graph Theory- Definition of (Undirected) Graphs. Paths. Circuits. Cycles and Subgraphs. Induced Subgraphs. Degree of a vertex. Connectivity. Planar Graphs and properties, Trees. Euler'sFormula for connected planar Graphs, Complete & Complete Bipartite Graphs, Kuratowski's Theorem (statement only) and its use.Spanning Trees, Cut-sets, Fundamental Cut -sets, and Cycle. Minimal Spanning Trees and Kruskal's Algorithm.

Unit-II Matrix Representations of Graphs. Euler's Theorem on the Existence of EulerianPaths and Circuits.Directed Graphs. In degree and out degree of a Vertex. Weighted undirected Graphs. Dijkstra'sAlgorithm.Strong Connectivity and Warshall's Algorithm. Directed Trees. Search Trees. Tree Traversals.

Unit-III Introductory Computability Theory--Finite State Machines and their Transition Table Diagrams. Equivalence of finite State Machines. Reduced Machines. Homomorphism.

Unit-IV Finite Automata. Acceptors. Non-deterministic Finite Automata and equivalence of its power to that of Deterministic Finite Automata. Moore and mealy Machines. Turing Machine and Partial Recursive Functions.

Recommended Books:

1. Elements of Discrete Mathematics by C.L. Liu.
2. Graph Theory and its application By N.Deo.
3. Theory of Computer Science by K.L.P.Mishra and N.Chandrashekaran.

References:

1. J.P. Tremblay & R. Manohar, Discrete Mathematical Structures with Applications to Computer Science, McGraw-Hill Book Co., 1997.
2. J.L. Gersting, Mathematical Structures for Computer Science, (3rd edition), Computer Science Press, New York.
3. Seymour Lepschutz, Finite Mathematics (International) edition 1983), McGraw-Hill Book Company, New York.

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4. J.E. Hopcroft and J.D Ullman, Introduction to Automata Theory, Languages & Computation, Narosa Publishing House.
5. N. Deo. Graph Theory with Application to Engineering and Computer Sciences. Prentice Hall of India.

Chairperson / H.O.D - Dr. Padmavati Subject Expert - Dr. Madhu Shrivastava Subject Expert - Dr. Shabnam Khan Subject Expert - Dr. S. K. Bhatt **Representative Members** 1. Dr. Anil Kashyap - 2. Shri A. K. Pandey - 3. Dr. Mayur Puri Goswami -	**Faculty members:** Dr. M.A. Siddiqui – Dr. Rakesh Tiwari – Dr. (Smt.) Prachi Singh –