परीक्षा नियंत्रण प्रकोष्ठ, जबलपुर इंजीनियरिंग महाविद्यालय, जबलपुर (म.प्र.)

क्रमांक / प.नि.प्र. / 2024 / 2682 जबलपुर, दिनांक 18 / 10 / 2024

सूचना

महाविद्यालय में अध्ध्यनरत B.Tech. (AICTE) / B.Tech. (PTDC) [AICTE] [Regular/Ex.] विद्यार्थियों को सूचित किया जाता है कि वे नवम्बर 2024 की परीक्षा एवं आगामी सत्र की परीक्षाओं में सम्मिलित होने से पूर्व अपने पेपर / विषय का Equivalence Syllabus महाविद्यालय के पोर्टल से Download कर प्राप्त कर सकते हैं अथवा महाविद्यालय के परीक्षा नियंत्रण प्रकोष्ठ में संपर्क कर सकते हैं। नवम्बर 2024 परीक्षा एवं आगामी सत्र की परीक्षा में उन्हें अपने पेपर / विषय में Equivalence Syllabus में ही सम्मिलित होना है। अतः Equivalence Syllabus की जानकारी न होने की दशा में सम्पूर्ण जिम्मेदारी स्वयं छात्र / छात्राओं की होगी।

Equivalence Syllabus हेतु निम्नानुसार Link का उपयोग कर सकते है:–

https://www.jecjabalpur.ac.in/UploadContent/frm_ViewScheme.aspx

प्राचार्य / मुख्य परीक्षा नियंत्रक
जबलपुर इंजीनियरिंग महाविद्यालय
जबलपुर

पृ.क्रमांक / प.नि.प्र. / 2024 / जबलपुर, दिनांक / 10 / 2024

प्रतिलिपिः–

01. समस्त विभागाध्यक्ष, जबलपुर इंजीनियरिंग महाविद्यालय, जबलपुर।
02. पीटीडीसी कार्यालय, जबलपुर इंजीनियरिंग महाविद्यालय, जबलपुर।

प्राचार्य / मुख्य परीक्षा नियंत्रक
जबलपुर इंजीनियरिंग महाविद्यालय
जबलपुर

EQUIVALENCE OF SUBJECTS OF DIFFERENT SCHEMES OF UNDER GRADUATE COURSES (B.Tech.)
OF Applied Mathematics

S.No.	Schemes	Subject Code & Subject Name (Semester) Having Equivalence in Syllabus	Final Subject code & subject (after equivalence)
1	AICTE	BT102 Mathematics-I **B.Tech. I Sem. / B.Tech. (PTDC) I Sem.**	BT12 Mathematics-I **B.Tech. I Sem.**
	Scheme 2023	BT12 Mathematics-I **B.Tech. I Sem.**	
2	AICTE	BT202 Mathematics-II **B.Tech. II Sem. / B.Tech. (PTDC) II Sem.**	BT22 Mathematics-II **B.Tech. II Sem.**
	Scheme 2023	BT22 Mathematics-II **B.Tech. II Sem.**	
3	AICTE	MA311 Mathematics-III **B.Tech. III Sem.** (CE/ME/IP) & **B.Tech. (PTDC) III Sem.** (CE/ME/EE)	MA31 Mathematics-III **B.Tech. III Sem. (CE/ME/IP) B.Tech. (PTDC) III Sem. (CE/ME/EE/EC)**
	Scheme 2023	MA31 Mathematics-III **B.Tech. III Sem.** (CE/ME/IP)	
4	AICTE	MA321 Mathematics-III **B.Tech. III Sem.** (EE/E&TC)	MA32 Mathematics-III **B.Tech. III Sem. (EE/E&TC)**
	Scheme 2023	MA32 Mathematics-III **B.Tech. III Sem.** (EE/E&TC)	
5	AICTE	MA331 Mathematics-III **B.Tech. III Sem.** (CSE/IT/AI)	MA33 Mathematics-III **B.Tech. III Sem. (CSE/IT/AI)**
	Scheme 2023	MA33 Mathematics-III **B.Tech. III Sem.** (CSE/IT/AI)	
6	AICTE	MA341 Mathematics-III **B.Tech. III Sem.** (MT)	MA34 Mathematics-III **B.Tech. III Sem. (MT)**
	Scheme 2023	MA34 Mathematics-III **B.Tech. III Sem.** (MT)	
7	AICTE	MA401 Discrete Structure **B.Tech. IV Sem.** (CSE/IT/AI)	MA41 Discrete Structure **B.Tech. IV Sem. (CSE/IT/AI)**
	Scheme 2023	MA41 Discrete Structure **B.Tech. IV Sem.** (CSE/IT/AI)	

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(AICTE Model Curriculum Based Scheme and Syllabus)

Bachelor of Technology (B.Tech.) I Semester (Common to all Disciplines)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
BT12	MATHEMATICS-I	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Calculus-I (08 hours)

Rolle's theorem, Mean value theorem, Expansion of functions by Maclaurin's and Taylor's theorem, Partial differentiation, Homogeneous functions, Euler's theorem, Maxima and Minima of two variables, Method of Lagrange's multipliers.

Module 2: Calculus-II (08 hours)

Definite integral as limit of a sum, Application in summation of series, Double integrals, Change of order of integrals, Triple integrals, Length of curves, Area and Volume of surfaces using double and triple integrals, Beta and Gamma functions and their properties.

Module 3: Sequences, Series and Laplace Transform (10 hours)

Convergence of sequence and series, Tests for convergence; Power series, Taylor's series, series for exponential, Trigonometric and logarithm functions; Fourier series: Half range sine and cosine series, Parseval's theorem. Laplace Transform, Inverse Laplace transform.

Module 4: Matrices (06 hours)

Rank of Matrix, Solution of simultaneous equations by elementary transformation and consistency of equations, Eigen values and Eigen vectors, Cayley-Hamilton theorem and its application to find the inverse of matrix, Diagonalisation of matrices.

Module 5: Vector Space (08 hours)

Vector Space, Linear dependence of vectors, Basis, Dimension; Linear transformations (maps) range and kernel of a linear map, Rank and Nullity, Inverse of a linear transformation, Rank-Nullity theorem, composition of linear maps, Matrix associated with a linear map.

Books References:

1. G.B. Thomas and R.I. Finney, Calculus and Analytic geometry, 9th Edition, Pearson, Reprint, 2002.
2. Erwin kreyszig, Advanced Engineering Mathematics, 9th Edition, John Wiley & Sons, 2006
3. Veerarajan T, Engineering Mathematics for first year. Tata McGraw-Hill, New Delhi, 2008.
4. Ramana B.V. Higher Engineering Mathematics, Tata McGraw-Hill, New Delhi. 11th Reprint. 2010.
5. D. Poole, Linear Algebra: A modern Introduction, 2nd Edition, Books/Cole, 2005.
6. N.P. Bali and Manish Goyal, A text book of Engineering Mathematics, Laxmi Publications, Reprint, 2008.
7. B.S. Grewal, Higher Engineering Mathematics, Khanna Publisher, 36th Edition. 2010.

Course Outcomes:

At the end of the course the students will able to:

1. Apply differential and integral calculus to notions of curvature and to improper integrals.
2. Understand basic knowledge of Beta and Gamma functions , functions of several variables.
3. Apply the fallouts of Rolle's Theorem of analysis to Engineering problems.
4. Determine the tool of power series and Fourier series, Laplace transform for learning advanced Engineering Mathematics.
5. Solve various problems using matrices and linear algebra in a comprehensive manner.

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Bachelor of Technology (B.Tech.) II Semester (Common to all Disciplines)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
BT22	MATHEMATICS-II	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Ordinary differential equations-I (08 hours)

Ordinary differential equations of first order (Linear and higher degree), Linear higher order differential equations with constant coefficients, Homogeneous linear differential equations, Simultaneous differential equations, Solving ODEs by Laplace Transform method.

Module 2: Ordinary differential equations-II (10 hours)

Second order ordinary differential equations with variable coefficients using one solution known, Removal of first derivative, Change of independent variable, Method of operational factor, Method of variation of parameters, Solution of second order ordinary differential equations by series method; Legendre polynomials, Bessel functions of the first kind and their properties.

Module 3: Partial differential equations (08 hours)

Formulation of partial differential equation, Solution of first order linear partial differential equations, First order non-linear partial differential equations, Homogeneous linear partial differential equations with constant coefficients of second and higher order, Method of separation of variables, applications of PDE in the solution of one dimensional Heat and wave equations.

Module 4: Functions of Complex variable (08 hours)

Functions of complex variables: Analytic functions, Harmonic conjugate, Cauchy-Riemann Equations (without proof), Line integral, Cauchy-Goursat theorem (without proof), Cauchy integral formula (without proof), singular points, poles & residues, Residue theorem, Application of Residues theorem for Evaluation of real integral (Unit Circle).

Module 5: Vector Calculus (06 hours)

Differentiation of vectors, Scalar and vector point function Gradient, Geometrical meaning of gradient, Directional Derivative, Divergence and Curl, Line integral Surface integral and Volume integral, Gauss Divergence, Stokes and Green theorems.

Books References:

1. G.B. Thomas and R.I. Finney, Calculus and Analytic geometry, 9th Edition, Pearson, Reprint, 2002.
2. W.E. Boyce and R.C. Di prima, Elementary differential Equations and Boundary Value Problem, 9th Edition Wiley India, 2009.
3. S.L. Ross Differential Equations , 3rd Edition Wiley India 1984.
4. J.W. Brown and R.V. Churchill. Complex Variables and Applications, 7th Edition Mc Graw Hill, 2004.
5. N.P. Bali and Manish Goyal, A text book of Engineering Mathematics, Laxmi Publications, Reprint 2008.
6. B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, 36th Edition 2010.

Course Outcomes:

At the end of the course the students will able to :

1. Solve the differential equations that model physical processes.
2. Understand mathematical tools needed in evaluating partial differential equation and their usage.
3. Determine the differentiation and integration of functions of a complex variable.
4. Apply Vector calculus in various techniques dealing with engineering problem.

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Bachelor of Technology (B.Tech.) III Semester, Branch (CE/ME/IP)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
MA31	MATHEMATICS-III	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Numerical Method-I (08 hours)

Roots of algebraic and transcendental equations: Bisection method, Regula-Falsi method, Newton-Raphson method, Iteration method, Graffes root squaring method, Solution of system of linear equations: Gauss elimination method, Gauss Jordan method, LU decomposition method, Relaxation method, Jacobi and Gauss-Seidel methods.

Module 2: Numerical Method-II (08 hours)

Interpolation: Finite difference operator and their relationships, Difference tables, Newton, Gauss, Bessel and Stirling's interpolation formulae, Divided differences,Lagrange interpolation and Newton's divided difference interpolation. Numerical differentiation and Integration: First and second order derivatives by various interpolation formulae, Trapezoidal, Simpsons $1/3^{rd}$ and $3/8^{th}$ rules.

Module 3: Numerical Method-III (10 hours)

Numerical solution of ordinary differential equations: Solution of ODE by Taylor series, Picard's method , Modified Euller method, Runge-Kutta method, Predictor corrector method. Partial differential equations: Finite difference, solution of two-dimensional Laplace and Poission's equations, Implicit and explicit methods for one dimensional heat equation (Bendre Schmidt and Crank-Nicholson methods), Finite difference explicit method for wave equation.

Module 4: Applied Statistics (08 hours)

Curve fitting by the method of least squares- Fitting of straight lines, Second degree parabolas and more general curves. Test of significance: Large sample test for single proportion, Difference of proportions, single mean, difference of means and difference of standard deviations.

Module 5: Concept of Probability (06 hours)

Probability Mass function, Probability Density Function, Discrete Distribution (Binomial, Poisson's distribution), Continuous Distribution (Normal, Exponential Distribution).

Books References:

1. P. Kandasamy, K.Thilagavathy, K. Gunavathi, Numerical Methods, S. Chand & Company, 2^{nd} Edition, Reprint 2012.
2. S.S. Sastry, Introductory methods of numerical analysis, PHI, 4^{th} Edition, 2005.
3. B.S. Grewal, Higher Engineering Mathematics, Khanna Publisher, 35^{th} Edition, 2010.
4. N.P. Bali and Manish Goyal, A text book of Engineering Mathematics, Laxmi Publications, Reprint, 2010.
5. S. Ross, A First Course in Probability, 6^{th} Edition, Pearson Education India 2002.
6. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3^{rd} Edition, Wiley 1968. Statistics.

Course Outcomes:

At the end of the course the students will able to:

1. Mathematical tools for Numerical Solution of algebraic and transcendental equations.
2. Estimate the value of function by various interpolation methods.
3. Determine derivative and integrals by numerical methods.
4. Solve the ODE and PDE by finite difference/numerical methods.
5. Apply probability distribution and statistics in various techniques dealing with engineering problems.

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Bachelor of Technology (B.Tech.) III Semester, Branch (EE/EC)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
MA32	MATHEMATICS-III	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Transform Calculus-I (06 hours)

Fourier integrals, Fourier sine and cosine integrals, Fourier transform, Fourier sine and cosine transforms and their elementary properties, Convolution theorem, Application of Fourier transformations to solve the boundary value problems.

Module 2: Transform Calculus-II (10 hours)

Hankel and Mellin transformations with their elementary properties, Application of Hankel and Mellin transformations to solve the boundary value problems, Wavelet transforms, CWT, properties of CWT, Z- transform and inverse Z-transform of elementary functions, Shifting theorems, convolution theorem, Initial and final value theorem.

Module 3: Basic Probability (08 hours)

Probability spaces, Counting techniques, Probability measure, Conditional probability and Baye's theorem, Random variable and distribution function, Moment, Expected value and Variance of Random variables, Chebychev Inequality, Moment generating function. Bivariate discrete and continuous random variables, Independence of random variables.

Module 4: Probability Distributions (08 hours)

Measures of Central tendency: Moments, Skewness and Kurtosis. Discrete Distributions (Binomial, Poisson's distribution) Continuous Distributions (Normal, Exponential Distribution).

Module 5: Applied Statistics (08 hours)

Curve fitting by the method of least squares- Fitting of straight lines, second degree parabolas and more general curves. Test of significance: Large sample test for single proportion, difference of proportions, single mean, difference of means and difference of standard deviations.

Books References:

1. B.S. Grewal, Higher Engineering Mathematics, Khanna Publisher, 35th Edition, 2010.
2. S. Ross, A First Course in Probability, 6th Edition, Pearson Education India 2002.
3. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3rd Edition, Wiley 1968. Statistics
4. Advanced Engineering Mathematics by B.S. Grewal, Khanna Publishers.
5. Higher Engineering Mathematics by B.V. Ramana TMH.
6. Prasanna Sahoo, Probability and Mathematical Statistics, Louisville KY 40292 USA.

Course Outcomes:

At the end of the course the students will able to :

1. Understand the knowledge of transform calculus.
2. Solve the Boundary value problems by the using transform methods.
3. Determine the concept of Basic probability.
4. Apply probability distribution and statistics in various techniques dealing with engineering problems.

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Bachelor of Technology (B.Tech.) III Semester, Branch (CS/IT/AI&DS)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
MA33	MATHEMATICS-III	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Numerical Methods-I (08 hours)

Solution of polynomial and transcendental equations – Bisection method, Newton –Raphson method and Regula – Falsi method. Finite differences, Relation between operators, interpolation using Newton's forward and backward difference formulae. Interpolation with unequal intervals: Newton's divided difference and Lagrange's formulae.

Module 2: Numerical Methods-II (10 hours)

Numerical differentiation, Numerical integration: Trapezoidal rule and Simpson's $1/3^{rd}$ and 3/8 rules. Solution of simultaneous Linear Algebraic equations by Gauss's Elimination, Gauss's Jordan, Crout's methods, Jacobi's Method, Gauss-Seidal, and Relaxation method. Solution of Ordinary differential equations: Taylor's series, Euler and modified Euler's method, Runge-Kutta method of fourth order Milne's and Adam's predicator – corrector methods.

Module 3: Basic Probability (08 hours)

Probability spaces, Counting techniques, Probability measure, Conditional probability and Baye's theorem, Random variable and distribution function, Moment, Expected value and Variance of Random variables, Chebychev Inequality, Moment generating function. Bivariate discrete and continuous random variables, Independence of random variables.

Module 4: Probability Distribution (08 hours)

Measures of Central tendency: Moments, Skewness and Kurtosis. Discrete Distributions (Binomial, Poisson's distribution), Continuous Distributions (Normal, Exponential Distribution.

Module 5: Applied Statistics (06 hours)

Curve fitting by the method of least squares- Fitting of straight lines, Second degree parabolas and more general curves. Test of significance: Large sample test for single proportion, Difference of proportions, Single mean, Difference of means and difference of standard deviations.

Books References:

1. B. S. Grewal, Numerical Method in Engineering and Sciences, Khanna Publishers
2. B. V. Ramanna, Higher Engineering Mathematics, TMH Publishers.
3. Prasanna Sahoo, Probability and Mathematical Statistics, Louisville KY40292 USA.
4. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3^{rd} Edition, Wiley 1968. Statistics.
5. Introductory Statistics, Vol.1 of 2, ISBN: 978-1-304-89164-8, Open Stax College Rice University Houston, texax77005.
6. B.S.Grewal,Higher Engineering Mathematics,Khanna Publishers,35^{th}Edition, 2010.

Course Outcomes:

At the end of the course the students will able to :

1. Understand mathematical tools for numerical solution of algebraic & transcendental equations.
2. Estimate the numerical values of function by interpolation techniques.
3. Determine derivative and integrals by various numerical methods.
4. Understand the concept of basic probability.
5. Apply probability distribution and statistics in various techniques dealing with engineering problems.

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Bachelor of Technology (B.Tech.) III Semester, Branch (Mechatronics)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
MA34	MATHEMATICS-III	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 2: Numerical Methods-I (08 hours)

Finite differences, Relation between difference operators, interpolation using Newton's forward and backward difference formulae. Interpolation with unequal intervals: Newton's divided difference and Lagrange's formulae. Numerical differentiation, Numerical integration: Trapezoidal rule, Simpson's $1/3^{rd}$ and 3/8 rules, Weddle's rule.

Module 2: Numerical Methods-II (08 hours)

Solution of polynomial and transcendental equations: Bisection method, Newton-Raphson method and Regula-Falsi method. Solution of simultaneous Linear Algebraic equations: Gauss's Elimination, Gauss's Jordan, Crout's methods, Jacobi's Method, Gauss-Seidal and Relaxation method.

Module 3: Transform Calculus-I (06 hours)

Fourier integrals, Fourier sine and cosine integrals, Fourier transform, Fourier sine and cosine transforms and their elementary properties, Convolution theorem, Application of Fourier transformations to solve the boundary value problems.

Module 4: Transform Calculus-II (10 hours)

Hankel Transforms, Mellin transforms and Wavelet transforms with their elementary properties, Application of Hankel and Mellin transformations to solve the boundary value problems, Z- transform and inverse Z-transform of elementary functions, Shifting theorems, convolution theorem, Initial and final value theorem, Application of Z- transform and inverse Z-transform to Radius/Circle of convergence.

Module 5: Probability Distributions and Statistics (08 hours)

Random variables, Probability Mass function, Probability Density function, Discrete Distributions (Binomial, Poisson Distribution); Continuous Distributions (Normal, Exponential Distribution), Introduction to curve fitting by the method of least squares and testing of hypothesis.

Books References:

1. S. Ross, A First Course in Probability, 6^{th} Edition, Pearson Education India 2002.
2. W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, 3^{rd} Edition, Wiley 1968. Statistics
3. B.S Grewal, Numerical methods in Engineering and Science, Khanna Publishers.
4. B.V. Ramana ,Higher Engineering Mathematics TMH Publications.
5. Prasanna Sahoo, Probability and Mathematical Statistics, Louisville KY 40292 USA.
6. E. Kreyszig, Advanced Engineering Mathematics, 10^{th} edition, Willey 2015.

Course Outcomes:

At the end of the course the students will:

1. Use the finite difference operators and numerical methods for solving problems related to Numerical differentiation, Numerical integration and other engineering applications.
2. Apply mathematical tools for numerical solution of algebraic, Transcendental and simultaneous equations.
3. Employ the techniques of transform calculus to solve application based problems.
4. Make use of probability distribution and concept of statistics to solve engineering related problems.

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Bachelor of Technology (B.Tech.) IV Semester, Branch (CS/IT/AI&DS)

COURSE CONTENT **w.e.f. July 2023**

Subject Code	Subject Name	Maximum marks Allotted			Total marks	Hours/Week			Total Credit
MA41	DISCRETE STRUCTURE	Theory			100	L	T	P	4
		End Sem	Mid-Sem Exam	Quiz/ Assignment		3	1	0	
		70	20	10					

Module 1: Set theory, relation and function (08 Hours)

Definition of sets, countable and uncountable sets, Venn Diagram, proofs of some general identities on sets relation: Definition, types of relation, composition general identities on sets relation: Definition, types of relation, composition ordering relation Function: Definition one to one, into and onto function, inverse function, composition of functions recursively defined functions, pigeonhole principle.

Module 2: Posets, Hasse diagram and lattices (08 Hours)

Introduction ordered set, Hasse diagram of partially, ordered set, isomorphic ordered set, well ordered set, properties of Lattices, bounded and complemented lattices. Propositional logic Proposition, first order logic, Basic logical operation, truth tables tautologies, contractions, Algebra of Proposition, logical implications, logical equivalence, Rules of inference, Predicates, the statement function.

Module 3: Theorem proving techniques (06 Hours)

Mathematical induction, Recurrence Relation and Generating Function: Introduction to recurrence relation and recursive algorithm, linear recurrence relations with constant coefficients, homogeneous solutions, particular solutions Total solution, generating functions, Solution by method of generating functions.

Module 4: Algebraic structure: Group, Ring, Field (10 Hours)

Definition properties types: Groups, Semi groups, Monoid groups, Abelian group, Properties of groups, Subgroup, Cyclic groups, Cosets, Normal subgroup, Homomorphism & Isomorphism of groups, Rings and Fields and finite fields: definition and examples.

Module 5: Graph theory (08 Hours)

Introduction and basic terminology of graphs, Planer graphs Multigraphs and weighted graphs Isomorphic graphs, Paths, Cycles and connectivity, shortest path in weighted graph Introduction to Eulerian paths and circuits, Hamiltonian paths and circuits, Graph coloring, chromatic number.

Books Reference:

1. Elements of Discrete Mathematics by C. L. Liu Tata McGraw-Hill Edition.
2. Discrete Mathematical structure with application in CS by Trembly, J.P. & Manohar; Mc Graw Hill.
3. Graph Theory with application to engineering and computer science by Deo, Narsingh; PHI.
4. Discrete Mathematics by Seymour Lipschutz and and mark Lipson Schaum's Outlines Tata McGraw-Hill Pub.

Course Outcomes:

At the end of the course the students will:

1. Solve basic problems based on set theory, relation and function.
2. Apply the concepts of Posets, Hasse diagram and Lattices to solve branch specific problems.
3. Establish the results employing theorem proving techniques.
4. Use the concept of Algebraic structures to solve branch specific problems.
5. Apply the concept of Graph theory to solve branch specific engineering related problems.

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