



MTSE-0101 - Advance Mathematics

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0101	Advance Mathematics	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

Numerical solution of Partial Differential Equation (PDE): Numerical solution of PDE of hyperbolic, parabolic and elliptic types by finite difference method.

Unit 2

MARKS 14

Integral transforms: general definition, introduction to Mellin, Hankel and Fourier transforms and fast Fourier transforms, application of transforms to boundary value problems in engineering.

Unit 3

MARKS 14

Integral equations: Conversion of Linear Differential equation (LDE) to an integral equation (IE), conversion of boundary value problems to integral equations using Green's function, solution of Integral equation, IE of convolution type, Abel's IE, Integro differential equations, IE with separable variable, solution of Fredholm Equation with separable kernels, solution of Fredholm and Volterra equations by method of successive approximations.

Unit 4

MARKS 14

Calculus of Variation: Functionals and their Variational, Euler's equation for function of one and two independent variables, application to enggnerin problems.

Unit-5

MARKS 14

FEM: Variational functionals, Euler Lagrange's equation, Variational forms, Ritz methods, Galerkin's method, descretization, finite elements method for one dimensional problems.



TEXT BOOKS:

1. Higher Engineering Mathematics by B.V. Ramana, Tata Mc Hill.
2. Advance Engineering Mathematics by Ervin Kreszig, Wiley Easten Edd.
3. Applied Numerical Methods with MATLAB by Steven C Chapra, TMH

Reference Books:

1. CF Froberg, Introduction to numerical analysis.
2. SS Sastry, Introductory methods of numerical analysis
3. Krasnove, Kiselevanded Makarenho, Integral equations
4. Buchanan, Finite element Analysis (schaum Outline S), TMH
5. Krishnamurthy, Finite element analysis, TMH
6. Numerical Methods in engineering, Salvadori and Baron
7. Theory and problems of Numeric analysis (Schaum Outline S), Schied, TMH





Swami Vivekanand University, Sagar(M.P.)



TEXT BOOKS:

1. IYENGER N.G.R., STRUCTURAL STABILITY OF COLUMNS & PLATES "
- 2 . SOM BY R.K.BANSAL.

References :

1. TIMOSHENKO, S.P. , THEORY OF ELASTICITY
2. TIMOSHENKO, S.P., THEORY OF ELASTIC STABILITY



MTSE-0103 - Advance Structural Analysis

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j= e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0103	Advance Structural Analysis	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

Matrix Method (Flexibility Method) : Force methods, Basic Concepts, evaluation of flexibility, transformation, analysis of a single member of different types, transformation of single member.

Unit 2

MARKS 14

Applications to plane and space structures with pin joints and rigid joints, energy approach in flexibility method, effect of support displacement and transformation

Unit 3

MARKS 14

Matrix Method (stiffness Method): Displacement methods, Basic concepts, Evaluation of stiffness coefficients, Direct stiffness method.

Unit 4

MARKS 14

Energy approach in stiffness method. Code No. approach for global stiffness matrix, effect of support displacement and temperature.

Unit 5

MARKS 14

Symmetrical & anti-symmetrical problems, Stiffness of plane & space frames solution of problems, comparison of force and displacement methods of solution

TEXT BOOKS:

1. C.S. Reddy , Basic Structural Analysis ,TMH, Publishers
2. W Wearer Jr. & James M. Gere, Matrix Analysis of Framed Structures,CBS Pub.

REFRNC E BOOKS:

1. Rajsekeran, Sankarsubramanian, Computational structural Mechanics, PHI
2. Pandit, Structural Analysis: a matrix approach, TMH



MTSE-0104 - Design of Concrete Structures

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j=e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0104	Design of concrete structures	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

Earthquake and wind effects on structures, loads on structures, reinforced concrete design of flat slabs, grid floors, deep beams, design of building load bearing and framed structures, design of foundations, seismic analysis.

Unit 2

MARKS 14

Design of ground and elevated water tanks, design of bridge decks.

Unit 3

MARKS 14

Pre-stressed concrete: analysis and design of sections under flexure using limit state approach, anchorage zone and end block design,

Unit 4

MARKS 14

Composite construction, introduction to statistically indeterminate pre-stressed concrete structures.

Unit 5

MARKS 14

Silos and bunkers, Janseen and Airy theory, rectangular bunkers with sloping bottoms and with high side walls, battery of bunkers.

TEXT BOOKS:

1. Jaikrishna, Chandrasekaran, Elements of earthquake engineering.
2. Shah and Karve, Text book of reinforced concrete

REFERENCES:

1. Punamia, RCC designs
2. IS-456, -875, -1893, -1984
3. Krishna Raju, Prestressed concrete.
4. Varghese, Advanced RC Designs, PHI
5. Everard, Theory and problems of RC design (Shaum Outline S), TMH



MTSE-0105 - Computer Aided Design

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0105	Computer aided design	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

1 Cpp programming language: Basics of programming, loops, decisions, structures, functions, objects/ classes, arrays.

Unit 2

MARKS 14

Overloading, inheritance, virtual functions and pointers, object oriented programming, Turbo Cpp features and programming.

Unit 3

MARKS 14

structure engineering problems programming.

Unit 4

MARKS 14

Computer Aided drafting, 2-D and 3-D drawings, Introduction to CAD software, drawing of buildings.

Unit 5

MARKS 14

Introduction to computer graphics, 3-D modeling software and analysis software.

TEXT BOOKS:

1. Robert Lafore, Object oriented programming in CPP
2. E. Balaguruswamy, Programming in C

REFERENCE BOOKS:

1. Syal and Gupta, Computer programming and engineering analysis.
2. AutoCAD, SolidEdge, Cadlab software and Manuals



MTSE – 0106 LAB-I CONCRETE

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0106	CONCRETE	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-

Unit 1

C++ programming language: Basics of programming, loops, decisions, structures, functions, objects/ classes, arrays.

Unit 2

Overloading, inheritance, virtual functions and pointers, object oriented programming, Turbo C++ features and programming, structure engineering problems programming.

Unit 3

Computer Aided drafting, 2-D and 3-D drawings, Introduction to CAD software, drawing of buildings.

Unit 4

Introduction to computer graphics, 3-D modeling software and analysis software

Reference Books:

1. Robert Lafore, Object oriented programming in C++
2. E. Balaguruswamy, Programming in C
3. Syal and Gupta, Computer programming and engineering analysis.
4. AutoCAD, SolidEdge, Cadlab software and Manuals.



MTSE-0107- LAB-II CAD

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0107	CAD	-	-	6	6	-	-	-	-	-	90	36	60	150	150	-

(A) Construction Materials:

Unit-I

Stones : Occurrence, varieties, Characteristics and their testing, uses, quarrying and dressing of stones.
Timber : Important timbers, their engineering properties and uses, defects in timber, seasoning and treatment, need for wood substitutes, Alternate materials for shuttering doors/windows, Partitions and structural members etc. **Brick and Tiles:** Manufacturing , characteristics, Classification and uses, Improved brick from inferior soils, Hand molding brick table, Clay-fly ash brick table, Flooring tiles and other tiles and their characteristics.

Unit-II

Advance Construction Materials : Use of fly ash in mortars, concrete, Fly ash bricks, stabilized mud blocks, non-erodible mud plinth, D.P.C. materials, Building materials made by Industrial & agricultural waste, clay products P.V.C. materials, advance materials for flooring, doors & windows, facia material, interiors materials for plumbing, sanitation & electrification.

(B) Construction Techniques:

Unit-III

Foundation: Type of soils, bearing capacity, soil slablisation and improvement of bearing capacity, settlement and safe limits. Spread foundations, wall footings, grillage, foundations well foundation, causes of failure and remedial measures; under reamed piles, foundation on shrinkable soils, black cotton soil, timbering for trenches, dewatering of foundations. Hyperbolic paraboloid footing, Brick arch foundation. Simple methods of foundation design, Damp proof courses, Repairs Techniques for foundations.

Unit-IV

Masonry and Walls : Brick masonry, Bonds, Jointing, Stone masonry, casting and laying, masonry construction, Brick cavity walls, code provisions regarding load bearing and non load bearing walls. Common defects in construction and their effect on strength and performance of walls, designed Brick masonry, precast stone masonry block, Hollow concrete block, plastering and pointing, white and color washing, distemping, dampness and its protection, Design of hollow block masonry walls. Doors, Windows and Ventilators: Types based on material etc., size location, fittings, construction sunshades, sills and jambs, RCC doors/windows frames. Stairs types, rule of proportionality etc., Repairs techniques for masonry, walls, doors & windows.



Unit-V

Floors and Roofs : Types, minimum thickness, construction, floor finishes, Flat roofs, RCC jack arch, reinforced brick concrete, solid slab and timber roofs, pitched roofs, false ceiling, roof coverings, Channel unit, cored unit, Waffle unit, Plank and Joist, Brick panel, L-Panel, Ferrocement roofing units, water proofing .Services : Water supply & Drainage, Electrification, Fire protection, thermal insulation, Air Conditioning, Acoustics & Sound insulation, Repairs to damaged & cracked buildings, techniques and materials for low cost housing., Repairs techniques for floors & roofs.

References:

Grading IVth Semester w.e.f.2011-12

1. Mohan Rai & M.P. Jai Singh; Advance in Building Materials & Construction,.
2. S.C. Rangwala; Engineering Materials
3. Sushil Kumar; Building Construction,
4. B.C. Punmia; Building Construction ,.
5. Building Construction, Metchell
6. Construction Technology, Chudley R.
7. Civil Engineering Materials, N. Jackson.
8. Engineering Materials, Surendra Singh.

List of Experiments:

1. Tests on Bricks
2. Tests on Aggregates
3. Tests on Cement
4. Determination of compressive strength of concrete with different cement grades.
5. Determination of workability of concrete by slump test
6. Determination of workability by compacting factor apparatus.
7. Determination of workability by Vee Bee consistometer.
8. Nondestructive testing of concrete by Rebound hammer test
9. Nondestructive testing of concrete by ultrasonic Method.
10. Test for the effect of admixtures on the concrete compressive strength
11. Testing of microconcrete
12. Design of concrete mix.



MTSE-0201 - STRUCTURAL DYNAMICS

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j=e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0201	STRUCTURAL DYNAMICS	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

Single Degree of Freedom System: Free and forced vibrations, Linear Viscous Damper, Coulomb Damper: Response to harmonic excitation, rotating unbalance and support excitations, Vibration isolation and transmissibility, single degree of freedom system as vibro-meter and accelerometer, response to periodic and arbitrary excitation.

Unit 2

MARKS 14

Duhamel’s integral. Impulse response function, Laplace transforms Fourier transform methods. Frequency response function. Phase-Plane Techniques. Critical Speed of rotors. Energy methods, RayleighOs method, Equivalent viscous damping.

Unit 3

MARKS 14

Two Degree of Freedom System. Matrix Formulation, Free Vibration, Beat phenomenon. Principle of damped and un-damped vibration absorbers.

Unit 4

MARKS 14

Multi Degree of Freedom System: Matrix formulation, stiffness and flexibility influence coefficients, eigenvalue problem, normal modes and their properties. Matrix iteration technique for eigenvalue, and eigen vectors, Free and forced vibration by modal analysis.

Unit-5

MARKS 14

Continuous System: Axial vibration of bar, torsion of shafts, transverse vibration of strings and bending vibration beams. Forced vibration. Normal mode method. LagrangeOs equation. Approximate methods of Rayleigh-Ritz, Galerkin etc.

TEXT BOOKS:

1. J M Biggs, Introduction to structural dynamic

Reference Books:

1. RW Clough, J Penzien, Dynamics of structures
2. D G Fertia, Dynamics and vibration of Structures



MTSE-0205 - THEORY OF PLATES & SHELLS

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0205	THEORY OF PLATES & SHELLS	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

Unit 1

MARKS 14

Theory of Plates: Bearing of long rectangular plates to the cylindrical surface with different edge conditions. Pure bending of plates-Differential equations of equilibrium.

Unit 2

MARKS 14

Theory of small deflections of laterally loads plates. Boundary conditions,momentcurvature relationship.

Unit 3

MARKS 14

Analysis of rectangular plates, Napier’s and levy solutions, exact theory of plates, symmetrical bending of circular plates, continuous rectangular plates

Unit 4

MARKS 14

Special and approximate methods of theory of plates, singularities, use of influence surfaces, use of infinite integrals and transforms, strain energy methods, experimental methods.

Unit 5

MARKS 14

Theory of Shells: Classification of shells, Gaussian curvature, General theory of cylindrical shells, membrane theory and bending theory for cylindrical shells, long and short shells, shells, shells with and without edge beams, Fourier loading.

TEXT BOOKS:

1. S Timoshenko, S WoinowskyK, Theory of Plates and Shells

REFERENCE BOOKS:

1. S Timoshenko, S WoinowskyK, Theory of Plates and Shells



MTSE – 0206 LAB-II (INSTRUMENTATION)

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j= e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE -0206	LAB-II (INSTRUMENTATION)	-	-	6	6	-	-	-	-	-	90	28	60	150	150	3 Hrs



MTSE-0207- LAB-IV (STRUCTURAL SOFTWARE ENGINEERING)

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j= e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0207	Lab-Iv (Structural Software Engineering)	-	-	6	6	-	-	-	-	-	90	28	60	150	150	3 Hrs

Unit 1

C++ programming language: Basics of programming, loops, decisions, structures, functions, objects/ classes, arrays.

Unit 2

Overloading, inheritance, virtual functions and pointers, object oriented programming, Turbo C++ features and programming, structure engineering problems programming.

Unit 3

Computer Aided drafting, 2-D and 3-D drawings, Introduction to CAD software, drawing of buildings.

Unit 4

Introduction to computer graphics, 3-D modeling software and analysis software

Reference Books:

1. Robert Lafore, Object oriented programming in C++
2. E. Balaguruswamy, Programming in C

TEXT BOOKS:-

3. Syal and Gupta, Computer programming and engineering analysis.
4. AutoCAD, SolidEdge, Cadlab software and Manuals.



(ELECTIVE I) MTSE-0301(A)
Advanced FEM and Programming

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE - 0301(A)	Advanced FEM and Programming	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

UNIT 1. MARKS 14

Iso-parametric formulation for plate and shell elements; various types of elements ; Hybrid elements.

UNIT 2. MARKS 14

FEM in dynamic problems, consistent mass matrix; Vibration of bars, beams and plate elements.

UNIT 3. MARKS 14

FEM in buckling problems, geometric matrix, buckling of struts and plate elements.

UNIT 4. MARKS 14

Structural modeling by FEM for structures such as shear walls, core walls, bridges and cooling towers.

UNIT 5. MARKS 14

Computational aspects; interpretation of results; comparison with other methods.



MTSE-0301(B) Advanced Foundation Engineering

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j=e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE - 0301(B)	Advanced Foundation Engineering	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

UNIT 1

MARKS 14

Deep Open Cuts: Introduction, Types of Cofferdams, Design data for cellular cofferdam, Stability analysis of cofferdam, interlock stresses. Soil Exploration: Introduction, Methods of exploration, Direct Methods and techniques of exploration, Methods of boring types of samples, Disturbance of soil sample, Soil samplers and sampling techniques, Ground water observations, Boring records, Spacing and depth of bore holes, Indirect methods of soil exploration, Penetration tests, Geophysical methods, Dynamics methods, Sequence of exploration programs.

UNIT 2

MARKS 14

Shallow Foundations: Introduction, General Requirements, Depth of foundation, Bearing capacity, Eccentric Inclined loads, Bearing capacity of stratified soils, Settlement of footings, Settlement of footings from constitutive laws, Settlement and tilt of eccentrically loaded footings, Allowable settlement, Plate bearing test, Standard penetration test Effect of water table, shallow foundation classification, Modulus of sub-grade reaction, Beams on elastic foundation, Raft foundation.

UNIT 3

MARKS 14

Pile Foundation: Introduction, Uses of piles, Types of piles, pile drivers, Bearing capacity of piles, Static analysis, Pile load test, Dynamic methods, Other methods, 24 Negative skin friction, Pile group, Ultimate bearing capacity of pile groups, Settlement of pile group, Influence of pile cap. Laterally loaded piles, Ultimate resistance, Elastic methods, Pile groups under lateral load, batter pile under lateral load, Batter pile groups under inclined loads, pile under dynamic loads.

UNIT 4

MARKS 14

Cofferdams: Introduction, types of Cofferdams, Design data for cellular cofferdam, Stability analysis of cofferdam, Interlock stresses.



UNIT 5

MARKS 14

Machine Foundations : Introduction, Criteria for satisfactory action of a machine foundation, Definitions, Degrees of freedom of a block foundation, Analysis of block foundation, Theory of linear weightless spring, Equivalent soil springs, Vertical vibration, Rocking vibration, Vibration in shear, Simultaneous rocking sliding and vertical vibrations for a foundation, Indian standard on design and construction of foundations for reciprocating machines, Foundations for impact type machines, Indian Standard on design and construction of foundations for impact type machines, Analysis of block foundation based on elastic half space theory

TEXT BOOKS:

1. Bowles, Foundation: Analysis and Design, McGraw Hill Book CO. Inc.
2. Peck , R.B. , W.E. Hanson and T.H. Thornburn, Foundation Engineering, Wiley , NewYork

Reference Books

1. Krishna Raju, Prestressed concrete.
2. Varghese, Advanced RC Designs, PHI



(ELECTIVE II) MTSE-0302(B)
Stability Theory in Structural Engineering

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE - 03021	Stability Theory in Structural Engineering	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

UNIT 1

MARKS 14

Concepts of Stability, Euler Buckling Load, Critical Load of Laced, Battened and Tapped columns, Inelastic Buckling of column.

UNIT 2

MARKS 14

Torsional Buckling, Torsional Flexural Buckling.

UNIT 3

MARKS 14

Lateral Instability of Beams, Beam Columns.

UNIT 4

MARKS 14

Local Buckling and post buckling behaviour of plates.

UNIT 5

MARKS 14

Application of Energy method and matrix method in stability problems.



MTSE-0302(B) Design of Tall Structures

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE - 0302(B)	Design of Tall Structures	3	1	-	4	70	28	20	10	100	-	-	-	-	100	3 Hrs

UNIT 1

MARKS 14

Behavior of tall structures under static and dynamic loads, model analysis.

UNIT 2

MARKS 14

Characteristics of Wind and Earthquake Forces. Gust Factor and Karman Vortices. Approximate and Regorlons Methods of analysis for wind and Earthquake Forces.

UNIT 3

MARKS 14

Shear walls, Frame Structures, Coupled shear walls, Tabular Structures, Ductility and reinforcement details at joint.

UNIT 4

MARKS 14

Criteria for design of Chimneys, T.V. Towers and other Tall Structure

UNIT 5

MARKS 14

Modeling of tall structures, case studies.

TEXT BOOKS:

- 1 Bowles, Foundation: Analysis and Design, McGraw Hill Book CO. Inc.
- 2 Peck , R.B. , W.E. Hanson and T.H. Thornburn, Foundation Engineering, Wiley , NewYork

Reference Books

- 1 Ranganathan, R. Reliability Analysis and Design of Structures, TMH
2. Rao. S.S. Reliability Based Design , McGraw Hill Book CO. Inc.
3. Ghosh , D.I., A Primer of Reliability Theory, john Wiley , New York
4. Lewis, E.E., Introduction to Reliability Engineering , John Wiley New Y



MTSE-0303 Project

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j= e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0303	Project	-	-	4	4	-	-	-	-	-	100	30	-	100	100	-



**MTSE-0304 Dissertation Part-I
(Literature Review/Problem Formulation/Synopsis)**

Course code	Title of the paper	Periods Per week				Distribution of Marks									Grand Total (j=e+i)	Duration of Exam
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)	Total (i= f+h)		
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0304	Dissertation Part-I	-	-	8	8	-	-	-	-	-	120	48	80	200	200	



MTSE-0401 Dissertation Part-II

Course code	Title of the paper	Periods Per week				Distribution of Marks								Grand Total (j=e+i)	Duration of Exam	
		L	T	P	C	Theory		MST (c)	TW(d)	Total (e = a+c+d)	Practical		LW (h)			Total (i= f+h)
						Max (a)	Min (b)				Max (f)	Min (g)				
MTSE-0401	Dissertation Part-II	-	-	20	20	-	-	-	-	-	300	120	200	500	500	-