

# Master of Technology (Power System) SEMESTER I

#### **Common for Power System / Power Electronics**

			1				TEACHING & EVALUATION SCHEME							
	The second second							THEORY		PRACTICAL				
COURSE CODE	CATEGORY	COURSE NAME	L	Т	P	CREDITS	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*			
MTPS 101		COMPUTER APPLICATIONS IN POWER SYSTEM	2	1	2	4	60	20	20	30	20			

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

\*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives: The Students will be able to

- 1. learn essential optimization techniques for applying to day to day problems.
- 2. impart the load flow solution methodology
- 3. assessment methods of power system dynamics.
- 4. They will be familiar with the method to evaluate power system economic operation and optimal power flow analysis.

#### Course Outcomes:

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes

The students will be able to

- 1. To recognize the main computer-methods in power system dynamics.
- 2. To apply optimization techniques to engineering and other problems.
- 3. To understand the fundamentals of the linear and non-linear programming problem.
- To demonstrate the computer-procedures for economic load dispatch operation and optimal load flow analysis of power system networks using Newton-Raphson iterative methods.
- 5. To develop ability to solve real problems of an existing power system using the computer.
- 6. To perform contingency analysis for power system networks

#### Syllabus:

#### UNIT-I

#### **Optimization Techniques**

Introduction, Statement of an optimization problem, design vector, design constraints, constraint surface, objective function, classification of optimization problem. Classical optimization Techniques, single variable optimization, multivariable optimization with equality constraints, Direct substitution method, constrained variation method, Lagrange Multiplier method, formulation of multivariable optimization, Kunh Tucker conditions.

Chairperson Board of Studies

Shri Valshnav Vidyan setti Vikita pridyelaya



# Master of Technology (Power System) SEMESTER I

#### UNIT-II

**Optimization Techniques** 

Nonlinear Programming, Unconstrained optimization Techniques, Direct search methods, Indirect search methods, Descent methods, One dimensional minimization methods, unimodal function, elimination methods.

#### UNIT -III

**Load Flow Studies** 

Revision of Load flow studies by using Newton Raphson method (polar and rectangular). Contingency evaluation, concept of security monitoring, Techniques of contingency evaluation, Decoupled load flow and fast decoupled load flow.

**UNIT-IV** 

Three Phase Load Flow: Three phase load flow problem notation, specified variables, derivation of equations. AC-DC load flow: Introduction, formulation of problem, D.C. System model, convertervariables, Derivation of equations, Inverter operation, generalized flow chart for equation solution.

#### UNIT-V

**Optimal Power Flow Analysis** 

Optimal power flow analysis considering equality and inequality constraints. Economic dispatch with and without limits (Classical method) Gradient method.

Optimal Power System Operation: Calculation of loss coefficients, loss coefficients using sensitivity factors, power loss in a line, Generation shift distribution factors, Transmission loss coefficients, transmission loss formula as a function of generation and loads, economic dispatch using loss formula which is function of real and reactive power, linear programming method.

#### Reference Books

- Computer Aided Power System Operation and Analysis-R.N.Dhar, Tata McGraw Hill New Delhi.
- 2. Computer Techniques in Power System Analysis- M.A. Pai, Tata Mc-Graw Hill New Delhi.
- 3. Computer Methods in Power System Analysis- Stagg and El.Abiad, Mc-Graw Hill (International Student Edition.)
- Computer Analysis of Power Systems-J.Arrilinga, C.P.Arnold. Wiely Eastern Ltd.
- 5. Optimisation Techniques-S.S.Rao, Wiely Eastern Ltd, New Delhi.
- 6. Modern Power System Engineering, Nagrath and Kothari (Tata McGraw Hill )
- 7. Power System Optimisation- D. P. Kothari, J. S. Dhillon, PHI.
- 8. Power Generation Operation and Control Allen Wood, Wiley Publications.

Chairperson

of Caudios

via visit. Lyntay



## Shri Vaishnav Vidyapeeth Vishwavidyalaya Master of Technology (Power System)

## SEMESTER I

#### List of Practical's:

1. Load flow analysis by using Newton Raphson method on digital computer.

2. Optimal Power flow analysis.

- 3. AC-DC load flow analysis on digital computer.
- 4. Analysis of various types of faults on digital computer.

5. Short circuit analysis.

Chairperson

Board of Studies

Shri Valshnov Vidyapeeth Vishwavitiyalaya

Indere



# Master of Technology (Power System) SEMESTER I

								CHING & THEORY	PRACTICAL		
COURSE CATEGORY COURSE NAM	COURSE NAME	L	Т	P	CREDITS	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	
MTPS 102		ADVANCED POWER ELECTRONICS	2	1	2	4	60	20	20	30	20

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives:

The Students will be able to gain knowledge of advanced power converters like Matrix Converters, Multilevel Inverters etc and their applications and usage for energy efficiency.

#### Course Outcomes:

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes

The students will be able to

- 1. Describe different converters.
- 2. Apply the skill in designing the converters.
- Gain ability to understand the role of converters in the improvement of energy usage efficiency.
- 4. Simulate the power converter circuits using MATLAB and observe the waveforms

#### Syllabus:

#### UNIT -I

#### Voltage Source Converters :

Review of 3-ph- full wave bridge converter, operation and harmonics, 3 level voltage source converters. PWM converter. Generalised technique of harmonic elimination and voltage control. Advanced modulation techniques (space vector modulation, 3 harmonic PWM) Comparison of PWM techniques. Converter rating.

#### UNIT -II

Matrix Converter: 3×3 matrix converter, principal of working, mathematical treatment, comparison of matrix converter with multi pulse converter.

Self and Line commutated current source converter: Basic concepts of CSC, converters with self commutating devices. Comparison with voltage source converter.

Chairperson

Board of Studies

Shri Vaishnav Vidyapeeth Vishwavidyalaya

Indore



# Master of Technology (Power System) SEMESTER I

#### UNIT-III

#### Multilevel Inverters:

Multilevel concept, Types of multilevel Inverters, diode clamped multilevel inverter, flying-capacitors multilevel inverters, cascaded multilevel inverter, switching device currents,DC link capacitor voltage balancing, features of multilevel inverters, comparison of multilevel converters.

#### UNIT-IV

Fundamental and harmonic voltages for a 3 level converter, 3 level converter with parallel legs, generalized techniques of harmonic elimination and voltage control.

#### Applications of multilevel Inverter:

Reactive power compensation Back to back intertie system, Utility compatible adjustable speed drives.

#### UNIT-V

#### **Energy Storage Systems:**

Flywheel energy storage system, superconducting magnetic energy storage system, other energy storage systems.

#### Akagi's p-q theory:

Conventional concepts of active and reactive power in single phase and three phase circuits-Equation of power with sinusoidal voltage source and non-linear loads -  $\alpha\beta$ 0 transformation of three phase four wire system- Akagi's instantaneous power (pq) theory- relationship between Akagi's components and conventional active and reactive power application of pq theory to reactive and harmonic power compensation in simple circuits.

#### Reference Books

- Power Electronic Control in Electrical Systems by E.Acha, Miller & Others (Newnes, Oxford publication) – first Edition
- 2. Power Electronics by M. H. Rashid Prentice Hall of India Pvt. Ltd. New Delhi, (3<sup>rd</sup> Edition).
- 3. Understanding FACTS by N.G. Hingorani & L.Gyugyi (IEEE Press, Indian Edition).
- 4. H. Akagi, E.H. Watanabe and M.Aredes "Instantaneous Power Theory and Applications to Power Conditioning, IEEE Press, New York.

Chairperson

Shri Valshmay a rayapheth Vishwavidyalaya



# Master of Technology (Power System) SEMESTER I

#### Common for Power System / Power Electronics

							TEACHING & EVALUATION SCHEMI							
	in the second	white the second				742	THEORY			PRACTICAL				
COURSE CATEGORY COURSE NAME	COURSE NAME	L	Т	P	CREDITS	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTPS 113	* 1.55 % 1	FLEXIBLE ALTERNATING CURRENT TRANSMISSION SYSTEMS	2	0	0	2	60	20	20	0	0			

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives:

To enable the students acquire a comprehensive knowledge on the concepts and technology of flexible AC transmission systems.

#### Course Outcomes:

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes. The students will be able to

- 1. Apply knowledge of FACTS controller to AC transmission system
- 2. Apply shunt, series and their combination for compensation.
- 3. Identify, formulate and solve network problems with FACTS controller.
- 4. Familiarize application & control strategies of FACTS controllers to improve power transmission capability.

#### Syllabus:

#### UNIT I

FACTS Concept and General System Considerations, Power Flow in AC System, Definitions on FACTS, Basic Types of FACTS Controllers. Converters for Static Compensation, Three Phase Converters and Standard Modulation Strategies (Programmed Harmonic Elimination and SPWM), GTO Inverters, Multi-Pulse Converters and Interface Magnetics,

#### **UNIT II**

Transformer Connections for 12, 24 and 48 pulse operation, Multi -Level Inverters of Diode Clamped Type and Flying Capacitor Type and suitable modulation strategies (includes SVM), Multi -level inverters of Cascade Type and their modulation, Current Control of Inverters

Chairperson Board of Studies

Shri Vaishnav Vidyapeeth Vishwavidyalaya

Indore



# Master of Technology (Power System) SEMESTER I

#### Unit III

Static Shunt Compensators, SVC and STATCOM, Operation and Control of TSC, TCR, STATCOM, Compensator Control, Comparison between SVC and STATCOM, STATCOM for transient and dynamic stability enhancement

#### UNIT IV

Static Series Compensation, GCSC, TSSC, TCSC and SSSC, Operation and Control, External System Control for Series Compensators, SSR and its damping, Static Voltage and Phase Angle Regulators, TCVR and TCPAR, Operation and Control

#### IINIT V

UPFC and IPFC, The Unified Power Flow Controller, Operation, Comparison with other FACTS devices, control of P and Q, Dynamic Performance, Special Purpose FACTS Controllers, Interline Power Flow Controller, Operation and Control.

#### Text Books:

- N.G. Hingorani & L. Gyugyi: Understanding FACTS: Concepts and Technology of Flexible AC
- 2. Transmission Systems. IEEE Press, 2000.
- 3. T.J.E Miller, Reactive Power Control in Electric Systems John Wiley & Sons
- 4. Ned Mohan et.al: Power Electronics. John Wiley and Sons.
- 5. 'FACTS Controllers and applications' course book for STTP, 2003, Dr Ashok S & K S Suresh kumar

Chairperson Deard of Studies

Shri Valshnav Vidyap seta Vishwevidyataya

Indore



# Master of Technology (Power System) SEMESTER I

X-1	Andreas III and Report to the Control						TEACHING & EVALUATION SCHEME							
								THEORY			TICAL			
COURSE CATEGORY	COURSE NAME	L	Т	P	CREDITS	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
MTPS 123		POWER SYSTEM DYNAMICS	2	0	0	2	60	20	20	0	0			

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives:

The Students

- 1. Will Be Able to familiarize with different models of machines
- 2. with emphasis on their analysis and application to practical engineering problems
- 3. efficiently & effectively
- 4. analysis and comparison of angle and voltage stability

#### Course Outcomes:

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes

The students will be able to

- 1. To impart knowledge on dynamic modeling of a synchronous machine in detail.
- 2. To describe the modeling of excitation and speed governing system in detail.
- 3. To understand the fundamental concepts of stability of dynamic systems and its classification.
- 4. To understand and enhance small signal stability problem of power systems.

#### Syllabus:

#### UNIT I

#### Review of Classical Methods

System model, states of operation and system security, steady state stability, transient stability, simple representation of excitation control.

#### **UNIT II**

#### Dynamics of Synchronous Generator Connected to Infinite Bus

System model, simplified synchronous machine model, calculation of Initial conditions, system simulation, improved model of synchronous machine, inclusion of SVC model.

Chairperson

Board of Studies

Shri Valshnav Vidyapeeth Vishwavidyalaya

Indere



# Master of Technology (Power System) SEMESTER I

#### UNIT III

#### Analysis of Single Machine

Small signal analysis, applications of Routh-Hurwitz criterion, analysis of synchronizing and damping torque, state equation for small signal model

#### **UNIT IV**

#### Power System Stabilizers

Basic concepts of control signals in PSS, structure and tuning, field implementation, PSS design and application, future trends.

#### a) Voltage Stability:

Definition, factors affecting voltage instability and collapse, analysis and comparison of angle and voltage stability, analysis and comparison voltage instability and collapse, control of voltage instability.

**b)** Islanding: Necessity for islanding, methods, use, advantages and disadvantages, implication on power system dynamic performance.

#### UNIT V

#### Multi-machine System

Simplified model, Improved model of the system for linear load, Inclusion of dynamics of load and SVC, introduction to analysis of large power system.

#### Text Books:

- 1. Power System Dynamics- K.R. Padiyar, B.S. Publications
- 2. Power System Dynamics Control Prabha S. Kundur, IEEE Press, New York
- 3. Power System Stability E.W. Kimbark, IEEE press, N.Y, Vol.
- Power System Voltage Stability C. W. Taylor., McGraw Hill International student edition.

Chairperson

Board of Studies

Shri Valshnav Vidyapeetli Vishwavidyalaya

Indara



# Master of Technology (Power System) SEMESTER I

					P	CREDITS	TEACHING & EVALUATION SCHEME							
		COURSE NAME	L	Т				THEORY		PRAC	TICAL			
COURSE CODE	CATEGORY						END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*			
MTPS133	escreption	POWER SYSTEM ECONOMICS AND MANAGEMENT	2	0	0	2	60	20	20	0	0			

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives:

The Students

- 1. will be able to characterize existing electric industry structure and market systems
- 2. determine electricity and transmission prices
- 3. how they affect the transmission expansion of electric power systems
- be conversant with transmission and resource planning tools and procedures used by today's industry.

#### Course Outcomes:

After completion of this course the students are expected to be able to demonstrate following knowledge, skills and attitudes

The students will be able to

- 1. Demonstrate the methods of economic regulation in India.
- 2. Impart optimal power system expansion and its planning
- 3. Adopt appropriate rules for load and electricity price forecasting
- 4. Apply appropriate transmission pricing schemes in open access transmission systems

#### Syllabus:

#### UNIT -I

#### Power Sector in India

Introduction to various institutions in Indian Power sector such as CEA, Planning Commissions, PGCIL, PFC, Ministry of Power, state and central governments, REC, utilities and their roles. Critical issues / challenges before the Indian power sector, Salient features of Electricity act 2003, Various national policies and guidelines under this act. Need of regulation and deregulation of power industry. Conditions favouring deregulation in power sector.

Chairperson Board of Studies

Shri Vaishnav Vidyspeeth Vishwavidyalaya

Indore



# Master of Technology (Power System) SEMESTER I

#### UNIT-II

Power sector economics and regulation

Typical cost components and cost structure of the power sector, Different methods of comparing investment options, Concept of life cycle cost, annual rate of return, methods of calculations of Internal Rate of Return(IRR) and Net Present Value(NPV) of project, Short term and long term marginal costs, Different financing options for the power sector. Different stakeholders in the power sector, Role of regulation and evolution of regulatory commission in India, types and methods of economic regulation, regulatory process in India.

#### **UNIT-III**

#### **Power Tariff**

Different tariff principles (marginal cost, cost to serve, average cost), Consumer tariff structures and considerations, different consumer categories, telescopic tariff, fixed and variable charges, time of day, interruptible tariff, different tariff based penalties and incentives etc., Subsidy and cross subsidy, life line tariff, Comparison of different tariff structures for different load patterns. Government policies in force from time to time. Effect of renewable energy and captive power generation on tariff. Determination of tariff for renewable energy. Non price issues in electricity restructuring, quality of supply and service, standards of performance by utility, environmental and social considerations.

#### UNIT-IV

#### Power sector restructuring and market reform

Different industry structures and ownership and management models for generation, transmission and distribution. Competition in the electricity sector- conditions, barriers, different types, benefits and challenges Latest reforms and amendments. Different market and trading models / arrangements, open access, key market entities- ISO, Genco, Transco, Disco, Retail co, Power market types, Energy market, Ancillary service market, transmission market, Forward and real time markets, market power and exercising it and its effect on market operations

#### UNIT-V

Transmission Planning and pricing

Transmission planning, Different methods of transmission pricing, Different transmission services, Congestion issues and management, Transmission cost allocation methods, Locational marginal price, firm transmission right. Transmission ownership and control, Transmission pricing model in India, Availability based tariff, role of load dispatch centers (LDCs), concept of arbitrage in Electricity markets, game theory methods in Power System, security constrained unit commitment. Ancillary services for restructuring, Forward ancillary service auction. Power purchase agreements.

Chairperson

Shri Valshnav Vidyapeeth Vishwavidyalaya

Indore



# Master of Technology (Power System) SEMESTER I

#### Reference Books:

- Fundamentals of Power System Economics by D.S. Kirschen and G. Strbac, John Wiley & sons.
- Electricity Economics Regulation and Deregulation, by G. Rothwell and T Gómez, Wiley Inter Science

3. Sally Hunt, "Making Competition Work in Electricity", 2002, John Wiley Inc

- 4. Electric Utility Planning and Regulation, Edward Kahn, American Council for Energy Efficient Economy
- 5. Know Your Power", A citizens Primer On the Electricity Sector, Prayas Energy Group, Pune.
- Power System Economics Designing markets for Electricity by Steven Stoft , Wiley- inter Science.
- Market Operations in Electric Power Systems, Forecasting, Scheduling and Risk Management, by M. Shahidepour, Hatim yamin, Zuyi Li, Wiley Inter Science

8. Deregulation in Power Industry, hand outs of CEP conducted by S.A. Khapard.

Chairperson Board of Studies

Shri Valshnav Vidyapeeth Vishwavidyalaya

Indore



## Shri Vaishnav Institute of Technology

## Master of Technology

#### SEMESTER I

			TEACHING & EVALUATION SCHEME										
			Т	HEORY		PRAC	Th	Т	P	CRED			
COURSE Category	COURSE NAME	END SEM University Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*								
MTMAN 101	BS	Advanced Mathematics	60	20	20	-	-	3	0	0	3		

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

\*Teacher Assessment shall be based on the following components:

Quiz/Assignment/Project/Participation in Class, given that no component shall exceed more than 10 marks.

## Course Educational Objectives (CEOs):

To introduce the students to advanced mathematics.

## Course Outcomes (COs):

## After the successful completion of this course students will be able to:

- A. understand the concept of a vector space, subspace, basis, dimensions and their properties.
- B. find solution/numerical solution of PDE.
- C. explain fundamental principles of probability theory.
- D. understand the concept of Markov process and Queuing theory.
- E. demonstrate the ability to solve mathematical problem with fuzzy logic.

## **Syllabus**

UNIT-I

Linear Algebra:

Vector Space, Subspace, Basis & dimensions, Change of Basis, Linear Transformation, Matrix Representation of Linear Transformation.

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth

Vishwavidyalaya, Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Joint Registrar Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore



			TEACHING & EVALUATION SCHEME											
COURSE CODE		COURSE NAME	т	HEORY		PRACT	TICAL	Th	Т	P	CRED			
	Category		END SEM University Exam	Тwo Тегт Ехат	Teachers Assessment	END SEM University Exam	Teachers Assessment							
MTMAN 101	BS	Advanced Mathematics	60	20	20	-	-	3	0	0	3			

UNIT - II

Numerical Solution of Partial Differential Equations:

Classification of second order equations, Finite difference approximation to derivatives, Elliptic equations, Solution of Laplace's equation, Solution of Poisson's equations, Parabolic equations, Solutions of Heat equations, Hyperbolic equations.

#### UNIT - III

Probability & Statistics:

Probability, Compound probability, Discrete Random Variable, Binomial and Poisson distribution, Continuous random variable, Normal distribution, Sampling distribution, Theory of hypothesis.

#### UNIT-IV

Stochastic Process & Queuing Theory:

Introduction of random or stochastic processes, Markov processes, Markov chain, Queuing theory: M/M/1:  $\infty/\infty/FCFS$ , M/M/1:  $N/\infty/FCFS$ .

UNIT-V

## Fuzzy Set and Theorems:

Fuzzy sets, Fuzzy relation, Fuzzy arithmetic, Fuzzy logic.

#### Texts:

- Higher Engg. Mathematics: B. S. Grewal, Khanna Publishers, Delhi 1.
- 2. Higher Engg. Mathematics: E. Kreyzig, John Wiley & Sons (Asia) Pvt. Ltd.
- 3. Operation Research: S. D. Sharma, Kedar Nath and Ram Nath, Delhi.
- Probability, Random variables & Random processes: Schaum's outlines. 4.
- Stochastic processes: J. Medhi, New age international publishers. 5.
- Calculus of finite differences and Numerica Analysis: Gupta and Malik. 6.
- Fuzzy logic in Engineering: T. J. Ross. 7.
- Fuzzy set theory and its applications: H. J. Zimmersoms. 8.

Chairperson **Board of Studies** Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Chairperson **Faculty of Studies** Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Controller of Examination

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

Joint Registrar Shri Vaishnav Vidyapeeth

Vishwavidyalaya, Indore



#### SEMESTER-III

#### MBAI301C ADVANCED HUMAN VALUES AND PROFESSIONAL ETHICS

	1	TEACHING & EVALUATION SCHEME										
SUBJECT CODE		T	PRACT	A								
	SUBJECT NAME	END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University · Exam	Teachers Assessment*	L	Т	P	CREDITS		
MBAI301C	Advanced Human Values and Professional Ethics	60	20	20	-	-	4	-	×	4		

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

#### Course Objective

The objective of the course is to disseminate the theory and practice of moral code of conduct and familiarize the students with the concepts of "right" and "good" in individual, social and professional context

#### **Examination Scheme**

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections A and B. Section A will carry 36 Marks and consist of five questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

#### Course Outcomes

- 1. Help the students to understand right conduct in life.
- 2. To equip students with understanding of the ethical philosophies, principles, models that directly and indirectly affect personal and professional life.

#### COURSE CONTENT

#### Unit I: Inculcating Values at Workplace

- 1. Values: Concept, Sources, Essence
- 2. Classification of Values.
- 3. Values in Indian Culture and Management: Four False Views, Value Tree
- 4. Eastern and Western Values; Values for Global Managers

Chairperson **Faculty of Studies** 

Shri Vaishnay Vidyapeeth

Vishwavidyalaya, Indore

Board of Studies Shri Valshnev Vidyapeeth Vishwavidyalaye Shri Vaishnav Vidyapeeth Vishwavidyalaya

hairperson

<sup>\*</sup>Teacher Assessment shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.



#### Unit II: Professional Ethics

- 1. Ethics: Concept, Five P's of Ethical Power, Organisational Tools to Cultivate Ethics
- 2. Theories of Ethics: Teleological and Deontological
- 3. Benefits of Managing Ethics in an Organisation
- 4. Ethical Leadership

#### Unit III: Indian Ethos and Management Style

- 1. Indian Ethos and Workplace
- 2. Emerging Managerial Practices
- 3. Ethical Considerations in Decision Making and Indian Management Model
- 4. Core Strategies in Indian Wisdom and Ethical Constraints

#### Unit IV: Human Behavior - Indian Thoughts

- 1. Guna Theory
- 2. Sanskara Theory
- 3. Nishkama Karma
- 4. Yoga: Types, Gains; Stress and Yoga

#### Unit V: Spirituality and Corporate World

- 1. Spirituality: Concept, Paths to Spirituality
- 2. Instruments to achieve spirituality

rperson

todam.

Vidyapesin (U.J., 19

to Diet ,

- 3. Vedantic Approach to Spiritual and Ethical Development
- 4. Indian Spiritual Tradition.

#### Suggested Readings

- Kausahl, Shyam L. (2006). Business Ethics Concepts, Crisis and Solutions. New Delhi: Deep and Deep Publications Pvt. Limited
- 2. Murthy, C.S.V. (2012). Business Ethics -Text and Cases. Himalaya Publishing House: Mumbai
- 3. Chakraborty, S. K. (1999). Values and Ethics for Organizations. Oxford university press
- 4. D.Senthil Kumar and A. SenthilRajan (2008). Business Ethics and Values. Himalaya Publishing House: Mumbai

nav Vidyapeeth Vishwavidyalaya