

Entrance Examination Syllabi

PhD Program

Thapar School of Liberal Arts &
Sciences

2025-26



PhD Disciplines

Candidates applying for the PhD program at TSLAS can choose to pursue a Phd in any one of the following academic domains:

1. Business Management
2. Cognitive Science
3. Computer Science
4. Data Science
5. Economics
6. Environment and Sustainability
7. History
8. Literary and Cultural Studies
9. Philosophy
10. Political Science
11. Psychology
12. Sociology

TSLAS Entrance Examination Guidelines

The examination will carry a total of 80 marks and will comprise two sections:

- Section I (40 marks):
This section will assess research aptitude using multiple-choice questions. The duration of the exam will be one hour
- Section II (40 marks):
This section will evaluate the applicant's knowledge of the chosen subject domain. The format of this section will vary depending on the chosen domain.
- Detailed exam formats and syllabi for each domain are mentioned in the latter part of this document.

Selection Process: Candidates shall be admitted based on the merit of Entrance Test and Interview to be conducted by the Institute. The candidates who secure a minimum of 50% (45% for SC/ST) marks in both sections of the written exam shall only be called for an Interview.

Relaxation for appearing in the entrance test will be given by the institute to those candidates who have qualified for the NET/JRF/GMAT/GRE/CUET(PG) or any other national exam conducted by the central government departments or their agencies and institutions.

Section 1: Research Aptitude Test Syllabus.

Exam format: This section of the entrance exam will consist of 40 compulsory Multiple Choice Questions.

Unit 1 Introduction to Research :

The concept of research, characteristics of good research, Application of Research, Meaning and sources of Research problem, characteristics of good Research problem, Research process, outcomes, application of Research, Meaning and types of Research hypothesis, Importance of Review of Literature, Organizing the Review of Literature.

Unit-2 Types of Research :

Types of research, pure (basic, fundamental) and applied research, qualitative and quantitative. Research Design: Meaning, need, types of research design – Exploratory, Descriptive, Casual research Design, Components of research design, and Features of good Research design. Experiments, surveys and case study Research design.

Unit-3 Sampling, Data Collection and Analysis :

Types and sources of data – Primary and secondary, Methods of collecting data, Concept of sampling and sampling methods – sampling frame, sample, characteristics of good sample, simple random sampling, purposive sampling, convenience sampling, snowball sampling, classification and tabulation of data, graphical representation of data, graphs and charts – Histograms, frequency polygon and frequency curves, bell shaped curve and its properties. Statistical Methods for Data Analysis: Applications of Statistics in Research, measures of central tendency and dispersion

Unit-4 Research Report :

Research report and its structure, journal articles – Components of a journal article. Explanation of various components. Structure of an abstract and keywords. Thesis and dissertations. components of thesis and dissertations. Referencing styles and bibliography.

Unit -5 Ethics in Research :

Plagiarism - Definition, different forms, consequences, unintentional plagiarism, copyright infringement, collaborative work. Qualities of good Researcher.

Unit -6 ICT Tools for Research :

Role of computers in research, maintenance of data using software such as Mendeley, Endnote, Tabulation and graphical presentation of research data and software tools. Web search : Introduction to Internet, use of Internet and WWW, using search engines and advanced search tools.

Section II: Subject Knowledge Section

Business Management

Exam Format: Multiple choice questions

Unit 1: Introduction to Management

Management – Concept, Process, Theories and Approaches, Management Roles and Skills
Functions – Planning, Organizing, Staffing, Coordinating and Controlling. Managerial Economics
– Concept & Importance, Demand analysis – Utility Analysis, Indifference Curve, Elasticity
& Forecasting Market Structures – Market Classification & Price Determination
National Income – Concept, Types and Measurement Inflation – Concept, Types and
Measurement.

Unit 2: Finance and Accounting

Accounting Principles and Standards, Preparation of Financial Statements Financial Statement
Analysis – Ratio Analysis, Funds Flow and Cash Flow Analysis, DuPont Analysis Preparation of
Cost Sheet, Marginal Costing, Cost Volume Profit Analysis Standard Costing & Variance
Analysis Financial Management, Concept & Functions Capital Structure – Theories, Cost of
Capital, Sources and Finance Budgeting and Budgetary Control, Types and Process, Zero base
Budgeting Leverages – Operating, Financial and Combined Leverages, EBIT–EPS Analysis,
Financial Breakeven Point & Indifference Level.

Unit – 3: Organisational Behaviour

Organisational Behaviour – Significance & Theories Individual Behaviour – Personality,
Perception, Values, Attitude, Learning and Motivation Group Behaviour – Team Building,
Leadership, Group Dynamics Interpersonal Behaviour & Transactional Analysis Organizational
Culture & Climate Work Force Diversity & Cross Culture Organisational Behaviour Emotions
and Stress Management Organisational Justice and Whistle Blowing Human Resource
Management – Concept, Perspectives, Influences and Recent Trends Human Resource Planning,
Recruitment and Selection, Induction, Training and Development Job Analysis, Job Evaluation
and Compensation Management, Organization Development, Change & OD Interventions

Unit 4: Strategic Management

Concept, Process, Decision & Types Strategic Analysis – External Analysis, PEST, Porter's
Approach to industry analysis, Internal Analysis – Resource Based Approach, Value Chain
Analysis Strategy Formulation – SWOT Analysis, Corporate Strategy – Growth, Stability,
Retrenchment, Integration and Diversification, Business Portfolio Analysis - BCG, GE Business

Model, Ansoff's Product Market Growth Matrix Strategy Implementation – Challenges of Change, Developing Programs Mckinsey 7s Framework, Quality Management and

Unit 5: Operations Management

Statistical Quality Control, Quality Circles, Total Quality Management – KAIZEN, Benchmarking, Six Sigma; ISO 9000 Series Standards-Operation Research – Transportation, Queuing Decision Theory, PERT / CPM

Unit 6: Marketing

Concept, Orientation, Trends and Tasks, Customer Value and Satisfaction. Market Segmentation, Positioning and Targeting Product and Pricing Decision – Product Mix, Product Life Cycle, New Product development, Pricing – Types and Strategies Place and promotion decision – Marketing channels and value networks, VMS, IMC, Advertising and Sales promotion Emerging Trends in Marketing – Concept of e-Marketing, Direct Marketing, Digital Marketing and Green Marketing International Marketing – Entry Mode Decisions, Planning Marketing Mix for International Markets

Unit 7: Statistics for Management

Concept, Measures Of Central Tendency and Dispersion, Probability Distribution – Binominal, Poison, Normal and Exponential Data Collection; Questionnaire Design Sampling – Concept, Process and Techniques Hypothesis Testing – Procedure; T, Z, F, Chi-square tests Correlation and Regression Analysis, Research: Meaning, Types, and Characteristics, Positivism and Post-positivistic approach to research. Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods. Scientific Research: Paradigms and Rigour; Quantitative Research(Hypothesis Testing, Methods and Designs, Psychometrics); Qualitative Research (Paradigms Methodologies, Types of Methodologies, Criteria of Rigour); Thesis and Article writing: Format and styles of referencing. Application of ICT in research. Research ethics.

Unit 8: Information Technology

Use of Computers in Management Applications; MIS, DSS Artificial Intelligence and Big Data Data Warehousing, Data Mining and Knowledge Management – Concepts; Managing Technological Change Entrepreneurship Development –Concept, Types, Theories and Process, Developing Entrepreneurial Competencies Innovations in Business – Types of Innovations, Creating and Identifying Opportunities, Screening of Business Ideas

Cognitive Science and Psychology

Exam Format: Multiple-choice Questions

Unit 1. Emergence of Psychology

Psychological thought in some major Eastern Systems: Bhagavad Gita, Buddhism, Sufism and Integral Yoga. Academic psychology in India: Pre-independence era; post-independence era; 1970s: The move to addressing social issues; 1980s: Indigenization; 1990s: Paradigmatic concerns, disciplinary identity crisis; 2000s: Emergence of Indian psychology in academia. Issues: The colonial encounter; Post colonialism and psychology; Lack of distinct disciplinary identity.

Western: Greek heritage, medieval period and modern period. Structuralism, Functionalism, Psychoanalytical, Gestalt, Behaviorism, Humanistic-Existential, Transpersonal, Cognitive revolution, Multiculturalism. Four founding paths of academic psychology - Wundt, Freud, James, Dilthey. Issues: Crisis in psychology due to strict adherence to experimental- analytical paradigm (logical empiricism). Indic influences on modern psychology.

Essential aspects of knowledge paradigms: Ontology, epistemology, and methodology. Paradigms of Western Psychology: Positivism, Post-Positivism, Critical perspective, Social Constructionism, Existential Phenomenology, and Co-operative Enquiry. Paradigmatic Controversies. Significant Indian paradigms on psychological knowledge: Yoga, Bhagavad Gita, Buddhism, Sufism, and Integral Yoga. Science and spirituality (avidya and vidya). The primacy of self-knowledge in Indian psychology.

Unit 2. Research Methodology and Statistics

Research: Meaning, Purpose, and Dimensions. Research problems, Variables and Operational Definitions, Hypothesis, Sampling. Ethics in conducting and reporting research

Paradigms of research: Quantitative, Qualitative, Mixed methods approach Methods of research: Observation, Survey [Interview, Questionnaires], Experimental, Quasi-experimental, Field studies, Cross-Cultural Studies, Phenomenology, Grounded theory, Focus groups, Narratives, Case studies, Ethnography

Statistics in Psychology: Measures of Central Tendency and Dispersion. Normal Probability Curve. Parametric [t-test] and Non-parametric tests [Sign Test, Wilcoxon Signed rank test, Mann-Whitney test, Kruskal-Wallis test, Friedman]. Power analysis. Effect size. Correlational Analysis: Correlation [Product Moment, Rank Order], Partial correlation, multiple correlation.

Special Correlation Methods: Biserial, Point biserial, tetrachoric, phi coefficient. Regression: Simple linear regression, Multiple regression. Factor analysis: Assumptions, Methods, Rotation and Interpretation. Experimental Designs: ANOVA [One-way, Factorial], Randomized Block

Designs, Repeated Measures Design, Latin Square, Cohort studies, Time series, MANOVA, ANCOVA. Single-subject designs.

Unit 3 . Psychological testing

Types of tests Test construction: Item writing, item analysis Test standardization: Reliability, validity and Norms Areas of testing: Intelligence, creativity, neuropsychological tests, aptitude, Personality assessment, interest inventories Attitude scales – Semantic differential, Staples, Likert scale. Computer-based psychological testing Applications of psychological testing in various settings: Clinical, Organizational and business, Education, Counseling, Military. Career guidance.

Unit 4. Biological basis of behavior

Sensory systems: General and specific sensations, receptors and processes Neurons: Structure, functions, types, neural impulse, synaptic transmission. Neurotransmitters.

The Central and Peripheral Nervous Systems – Structure and functions. Neuroplasticity. Methods of Physiological Psychology: Invasive methods – Anatomical methods, degeneration techniques, lesion techniques, chemical methods, microelectrode studies. Non-invasive methods – EEG, Scanning methods. Muscular and Glandular system: Types and functions Biological basis of Motivation: Hunger, Thirst, Sleep and Sex. Biological basis of emotion: The Limbic system, Hormonal regulation of behavior. Genetics and behavior: Chromosomal anomalies; Nature-Nurture controversy [Twin studies and adoption studies]

Unit 5. Attention, Perception, Learning, Memory and Forgetting

Attention: Forms of attention, Models of attention Perception: Approaches to the Study of Perception: Gestalt and physiological approaches Perceptual Organization: Gestalt, Figure and Ground, Law of Organization Perceptual Constancy: Size, Shape, and Color; Illusions Perception of Form, Depth and Movement Role of motivation and learning in perception Signal detection theory: Assumptions and applications Subliminal perception and related factors, information processing approach to perception, culture and perception, perceptual styles, Pattern recognition, Ecological perspective on perception.

Unit 6. Learning Process:

Fundamental theories: Thorndike, Guthrie, Hull Classical Conditioning: Procedure, phenomena and related issues Instrumental learning: Phenomena, Paradigms and theoretical issues; Reinforcement: Basic variables and schedules; Behaviour modification and its applications

Cognitive approaches in learning: Latent learning, observational learning. Verbal learning and Discrimination learning Recent trends in learning: Neurophysiology of learning Memory and Forgetting. Memory processes: Encoding, Storage, Retrieval Stages of memory: Sensory memory, Short-term memory (Working memory), Long-term Memory (Declarative – Episodic and Semantic; Procedural) Theories of Forgetting: Interference, Retrieval Failure, Decay, Motivated forgetting

Unit 7. Thinking, Intelligence and Creativity

Theoretical perspectives on thought processes: Associationism, Gestalt, Information processing, Feature integration model Concept formation: Rules, Types, and Strategies; Role of concepts in thinking-Types of Reasoning Language and thought -Problem solving: Type, Strategies, and Obstacles-Decision-making: Types and models-Metacognition: Metacognitive knowledge and Metacognitive regulation-Intelligence: Spearman; Thurstone; Jensen; Cattell; Gardner; Stenberg; Goleman; Das, Kar & Parrila-Creativity: Torrance, Getzels & Jackson, Guilford, Wallach & Kogan Relationship between Intelligence and Creativity

Unit 8. Personality, Motivation, emotion, stress and coping

Determinants of personality: Biological and socio-cultural Approaches to the study of personality: Psychoanalytical, Neo-Freudian, Social learning, Trait and Type, Cognitive, Humanistic, Existential, Transpersonal psychology. Other theories: Rotter's Locus of Control, Seligman's Explanatory styles, Kohlberg's theory of Moral development.-Basic motivational concepts: Instincts, Needs, Drives, Arousal, Incentives, Motivational Cycle.

Approaches to the study of motivation: Psychoanalytical, Ethological, S-R Cognitive, Humanistic Exploratory behavior and curiosity -Zuckerman's Sensation seeking-Achievement, Affiliation and Power Motivational Competence-Self-regulation-Flow-Emotions: Physiological correlates-Theories of emotions: James-Lange, Cannon-Bard, Schachter and Singer, Lazarus, Lindsley. Emotion regulation-Conflicts: Sources and types- Stress and Coping: Concept, Models, Type A, B, C, D behaviors, Stress management strategies [Biofeedback, Music therapy, Breathing exercises, -Progressive Muscular Relaxation, Guided Imagery, Mindfulness, Meditation, Yogasana, Stress Inoculation Training].

Unit 9. Social Psychology

Nature, scope and history of social psychology-Traditional theoretical perspectives: Field theory, Cognitive Dissonance, Sociobiology, Psychodynamic Approaches, Social Cognition.-Social perception [Communication, Attributions]; attitude and its change within cultural context; prosocial behavior Group and Social influence [Social Facilitation; Social loafing]; Social influence [Conformity, Peer Pressure, Persuasion, Compliance, Obedience, Social Power, Reactance]. Aggression. Group dynamics, leadership style and effectiveness. Theories of intergroup relations [Minimal Group Experiment and Social Identity Theory, Relative Deprivation Theory, Realistic Conflict Theory, Balance Theories, Equity Theory, Social Exchange Theory]-Applied social psychology: Health, Environment and Law; Personal space, crowding, and territoriality.

Unit 10. Human Development and Interventions

Developmental processes: Nature, Principles, Factors in development, Stages of Development. Successful aging.-Theories of development: Psychoanalytical, Behavioristic, and Cognitive

Various aspects of development: Sensory-motor, cognitive, language, emotional, social and moral.-Psychopathology: Concept, Mental Status Examination, Classification, Causes Psychotherapies: Psychoanalysis, Person-centered, Gestalt, Existential, Acceptance Commitment Therapy, Behavior therapy, REBT, CBT, MBCT, Play therapy, Positive psychotherapy, Transactional Analysis, Dialectic behavior therapy, Art therapy, Performing Art Therapy, Family therapy.

Applications of theories of motivation and learning in School-Factors in educational achievement-Teacher effectiveness -Guidance in schools: Needs, organisational set up and techniques Counselling: Process, skills, and techniques

Unit 11. Emerging Areas

Issues of Gender, Poverty, Disability, and Migration: Cultural bias and discrimination. Stigma, Marginalization, and Social Suffering; Child Abuse and Domestic violence.

Peace psychology: Violence, non-violence, conflict resolution at macro level, role of media in conflict resolution. Wellbeing and self-growth: Types of wellbeing [Hedonic and Eudemonic], Character strengths, Resilience and Post-Traumatic Growth.

Health: Health promoting and health compromising behaviors, Life style and Chronic diseases [Diabetes, Hypertension, Coronary Heart Disease], Psychoneuroimmunology [Cancer, HIV/AIDS]

Psychology and technology interface: Digital learning; Digital etiquette: Cyber bullying; Cyber pornography: Consumption, implications; Parental mediation of Digital Usage.

Computer Science and Data Science

Exam Format: Multiple Choice Questions

Unit 1: Sets and Relations

Set Operations, Representation and Properties of Relations, Equivalence Relations, Partially Ordering. Boolean Algebra: Boolean Functions and its Representation, Simplifications of Boolean Functions. Digital Logic Circuits and Components: Logic Gates, Map Simplifications, Combinational Circuits, Sequential Circuits, Flip-Flops, Decoders, Multiplexers.

Unit 2: Computer Organization

Instruction Codes, Computer Registers, Computer Instructions, Timing and Control, Instruction Cycle, Input-Output, Interrupt. Programming in C: Tokens, Identifiers, Data Types, Sequence Control, Subprogram Control, Structures, Union, String, Pointers, Functions.

Unit 3: SQL

Data Definition and Data Types, Constraints, Queries, Insert, Delete, and Update Statements; Views, Stored Procedures and Functions, Database Triggers. Relational Databases: Functional Dependencies and Normalization, Algorithms for Query Processing and Optimization, Transaction Processing, Concurrency Control Techniques, Database Recovery Techniques.

Unit 4: Big Data Systems

Big Data Characteristics, Types of Big Data, Big Data Architecture.

Unit 5: Basics of Operating Systems

Operating System Structure, Operations and Services, System Calls, Process Management, Threads, CPU Scheduling, Deadlocks. Data Structures: Arrays and their Applications, Stacks, Queues, Priority Queues, Linked Lists, Trees, Binary Tree, Binary Search Tree, Graphs, Sorting and Searching Algorithms, Hashing.

Unit 6: Approaches to AI

State Space Representation of Problems, Informed Search, Uninformed Search. Artificial Neural Networks (ANN): Supervised, Unsupervised and Reinforcement Learning; Single Perceptron, Multi-Layer Perceptron.

Economics

Examination format: Multiple Choice Questions

Unit 1 Statistics and Mathematics

Mean; Mode; Median; Dispersion; Skewness; Quartile Deviation; Average Deviation; Standard Deviation; Correlation; Simple Regression Model Probability Distribution Sampling
Mathematics: Sets and Vector Functions of one and several real variables; Single and Multi-variable optimization; Integration of functions; Difference equations; Matrices and Determinants; Linear Programming; Probability

Unit 2 Microeconomics

Theory of consumer behaviour; theory of production; market structure; general equilibrium and welfare economics; externalities; Taxation: its economic effects; dead weight loss and distortion, efficiency and equity considerations, tax incidence, optimal taxation; international trade; game theory – normal and extensive forms, Nash and sub-game perfect equilibrium.

Unit 3 Macroeconomics

National Income Accounting; Income and Output Determination – Aggregate Demand and Aggregate Supply; Effective Demand Principle; Classical and Keynesian Theory; Neoclassical models of growth; Demand and Supply of Money; Money Multiplier and High-Powered Money; Credit Creation; Quantitative Theories of Money; Philip's Curve; Mundell and Fleming Model (IS, LM and BP curve); Balance of Payments; exchange rate determination; Purchasing Power Parity; Infinite horizon and overlapping generation models; Nominal rigidities; Theories of unemployment; Fiscal and monetary policy; Monetary and Fiscal Policy of India and its role.

Unit 4 Econometrics

Random variables, statistical inference, linear regression (including regressions with dummy variable regressors), multicollinearity, autocorrelation, omitted variables, measurement error, instrumental variables.

Environment and Sustainability

Exam Format: Multiple Choice Questions

Unit 1. Core Environmental Science & Sustainability Concepts

Fundamentals of Environmental Science: Ecosystem Structure and Function, Biodiversity and Conservation, Environmental Ethics and Policies, Sustainable Development Goals (SDGs).

Unit 2. Climate Change & Environmental Challenges

Global Warming & Climate Change: Causes, Impacts, and Mitigation, Carbon-Sequestration and Emission Reduction Strategies, Global Climate Agreements-(Kyoto Protocol, Paris Agreement), Environmental Hazards & Disaster Management, Environmental Degradation & Restoration technologies.

Unit 3. Sustainability & Resource Management

Renewable & Non-renewable Resources: Sustainable Energy Systems (Solar, Wind, Biomass, and Bioenergy), Land Resource Management and Conservation, Life Cycle Analysis, Emergy Analysis, Foot printing Analysis, Circular Economy.

Unit 4. Environmental Policy & Governance

Environmental Laws and Regulations (Global and National Frameworks): Environmental Impact Assessment (EIA), Policy Research in Restoration Science and Education, Corporate Social Responsibility & Green Business Models.

Unit 5. Interdisciplinary Aspects of Sustainability

Sustainable Urban Development: Urban Forestry & Agroforestry, Green Infrastructure and Smart Cities.-Indigenous Knowledge, Advanced Technologies, and Sustainability: Local & Regional knowledge systems, Environmental Microbiology, Biotechnology, Nano- biotechnology, Remote Sensing & GIS Applications in Sustainability, Ecological Economics & Modelling Environmental Systems.

History

Exam Format: Essay Questions

Section A

Research Methodology

Introduction to Applied Research: :Meaning of History-Objectives of Historical Research;Types of research: Quantitative/ Qualitative Research, Conceptual/Empirical Research.

Review of Literature: :Primary source analysis;Secondary source analysis;Visual Sources analysis; Ethnography; Archival Research; Writing literature review

Section B

1. Debates on periodization
2. Historical Methods and Theories
3. Ancient History of India (1000 CE to 750 CE): Stone Age (Paleolithic, Mesolithic and Neolithic age), Chalcolithic Age; Indus Valley Civilization in Comparative Perspective; Vedic Age; State formation in Ancient India ; Ancient Indian Political Thoughts; Mauryas – Guptas ; Dissent against Brahmanism
4. Early Medieval India (750 CE - 1206 CE): Major political developments in Northern India; Rise of Rajputs; The Cholas; Debates on Indian Feudalism, Segmentary State and Integrative Polities
5. Medieval History of India (1206 CE-1707 CE)-Delhi-Sultanate -Vijaynagar and Bahamani Kingdom -Bhakti and Sufi Movements-Mughal Empire -Debates on the Eighteenth Century
6. Modern History of India (1707 to 1947 CE):Colonial Rule in India-Anti-Colonial Response-Social and Religious Reform Movements Partition
7. World History (200 CE onwards): Rise of Christianity-Renaissance-Protestant Reformation-Enlightenment-Industrial Revolution-Rise of Islam-Umayyad and Abbasid Caliphate-Ottomans and Safavids-World Revolutions-First and Second World War -Cold War

Literary and Cultural Studies

Exam Format: Essay Question

Section A: Literature

Indian and World Literature- Classical literature- Regional Indian literatures in translation- Indian writing in English- Postcolonial literatures- Literary movements- Contemporary literary themes: caste, gender, migration, climate change, etc. Folklore and Mythology Studies- Indigenous oral traditions and continuing cultural productions- Vernacular cosmologies and local epistemologies- Comparative mythology; re-tellings and adaptations- Iranian Studies and Persianate Societies- Indo-Iranian literary and cultural exchange- Persian literary traditions in South Asia- Sufi thought, poetry, and aesthetics- Cross-cultural networks: trade, migration, language, and diplomacy

Section B: Culture

Social and Cultural Anthropology- Ethnographic methods and participant observation- Kinship, ritual, religion, and belief systems- Everyday life and cultural production- Anthropology of media, art, and performance

Cultural Studies- Cultural materialism and subaltern studies- Identity, ideology, and power: gender, caste, class, race- Popular culture and mass media- Globalisation and cultural hybridity
Social and Cultural Gerontology- Theories of ageing and the life course- Eldercare, intergenerational relationships, and migration- Representation of ageing in literature, media, and film- Ageing, identity, and embodiment across cultures

Section C: Media

Media, Film, and Visual Studies- Key thinkers in media studies: Marshall McLuhan, Raymond Williams, Stuart Hall- Semiotics and visual analysis: Roland Barthes, John Berger- Film theory: genre, spectatorship, national cinema, auteur theory- Digital cultures, social media, and visual storytelling

Philosophy

Exam Format: Essay Questions

Part 1: There will be 6 argument questions (2 marks each), 6 translations (1 mark each), 2 limbs of Indian inference questions (1 mark each).

Covers elementary logic and Indian logic. Exercises include: assessing arguments, demonstrating ability to distinguish between deductions and inductions (weak and strong); translations from natural language to propositional logic (and vice versa), recognising the limbs of Indian inference (*anumāna*), knowledge of logical Fallacies (*hetvābhāsa*), and Indian Reasoning (*Nyāya*).

Suitable textbooks for preparation are:

Copi, Irving Marmer; Cohen, Carl & McMahon, Kenneth (1953). *Introduction to Logic*. New York, NY, USA: Macmillan. Edited by Carl Cohen & K. D. McMahon.

Inferential Defect (*hetvābhāsa*) in e-pathshala

[https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/Philosophy/07.Logic_2/33._Inferential_Defect_\(hetvabhāsa\)/et/8992_et_7.33.1.pdf](https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/Philosophy/07.Logic_2/33._Inferential_Defect_(hetvabhāsa)/et/8992_et_7.33.1.pdf)

Venkata Raghavan, R. (2022). Beyond Smoke and Fire: Towards Developing New Tools for Teaching Anumāna, *Journal of Kavikulaguru Kalidasa Sanskrit University*, 1(9), 297-305.

<https://kksushodhasamhita.org/index.php/sdsa/article/view/1011/64>

Part .2, in this part, the student is asked to present and discuss an argument as it appears in the original source and as it is discussed further in the literature. Part B.2 will consist of two questions (10 marks each) covering any of these readings:

Dennett, Daniel (1978). Where Am I? in *Brainstorms: Philosophical Essays on Mind and Psychology* (MIT Press).

Goodman, Nelson (2010). Just the Facts Ma'am. in M. Krausz (ed.) *Relativism: A Contemporary Anthology* (Columbia University Press, New York).

Kim, Jaegwon (2005). *Physicalism, or Something Near Enough*, Princeton University Press. Chapter 2.

Berkeley, George (1710). *A treatise concerning the principles of human knowledge*. Mineola, N.Y.: Dover Publications. Edited by Thomas J. McCormack. Part I, section I to XXVI.

Quine, W. V. (1950). Identity, ostension, and hypostasis. *Journal of Philosophy* 47 (22):621-633.

Schaffer, Jonathan (2010). Monism: The Priority of the Whole. *Philosophical Review* 119 (1):31-76.

Lewis, David Kellogg (2001). Ramseyan humility. In David Braddon-Mitchell & Robert Nola, *The Canberra Plan*. Oxford University Press.

Hempel, Carl Gustav (1945). Studies in the logic of confirmation (I.). *Mind* 54 (213):1-26.

Wildman, Nathan (2022). Necessity by accident. *Argumenta* 7 (2):323-335.

Matilal, B. K. (1968). *The Navya Nyāya Doctrine of Negation*. Cambridge: Harvard University Press. [Chapter I of the book pp.3-98]

- Ganeri, J. (1996). Meaning and Reference in Classical India. *Journal of Indian Philosophy*, Vol 24(1). 1-19
- Timalsina, S. (2009). Consciousness in Indian Philosophy: The Advaita Doctrine of Awareness only. Routledge [Part I of the book pp. 1-60].
- Bilimoria, P. (1980). Perception (Pratyakṣa) in Advaita Vedānta. *Journal of Indian Philosophy*. Vol 30(1). pp.35-44.

Political Science

Exam Format: Essay Questions

The domain-specific section comprises the following five units: (1) individuals, (2) groups, (3) institutions, (4) international relations, and (5) political methodology. For Unit 1 to Unit 4, students can choose a question from either Indian-specific or comparative contexts. All students must answer the same question for Unit 5.

Unit-1: Individuals

Individuals have been one of the most important subjects that political scientists focus on for their research, especially after the development of survey methods in the mid-20 th century in the United States. The focus of analysis is generally on two aspects: (a) preferences, opinions, and beliefs that individuals have; (b) the behaviour of those individuals. As such, topics for the PhD entrance examination include, if not exhaustive, the following ones.

A) Indian Contexts

Indian Secularism, Communalism, Muslim Representation, (Interstate) Migration, Fundamental Rights.

B) Comparative Contexts

Political Behaviour, Political Ideology, Human Rights, Political Participation, and Public Opinions

Unit-2: Groups

Individuals, on the other hand, form and/or belong to groups through which they attempt to achieve the goals—hereinafter, collective goals—that they collectively share. The basic assumption here is that collective goals may not necessarily be the sum of individuals' opinions, beliefs, or preferences. In this regard, students will choose one of the two questions which cover the following topics.

A) Indian Contexts

The Indian Party System, National and Regional Parties, Coalition Politics in India, Caste and Politics, and Women in India

B) Comparative Contexts

Collective Action, Common Good and Interests, Interest Groups, and Political Parties

Unit-3: Institutions

In a society of any complexity, the relative power of the groups changes, but if the society is to be a community, the power of each group is exercised through political institutions which

temper, moderate, and redirect that power so as to render the dominance of one social force compatible with the community of many. In this regard, students will choose one of the two questions which cover following topics.

A) Indian Contexts

The Electoral Commission of India and Elections in India, the Lok Sabha, The Indian Cabinet, and the Supreme Court of India, and Federalism

B) Comparative Contexts

Elections, Legislatures, Executives, Courts, and the Media, and Federalism

Unit-4: International Relations

The most complex of political institutions is a nation state which invests in hard and/or soft powers through which the state attempts to achieve its desired goal especially in international communities. But states are not a solo actor in international politics. Given the process of globalisation, non-state actors (e.g., civil society organisations, business, or even individuals) have played a key role especially for environment, technology, or humanitarian crises. In this regard, students will choose one of the two questions which cover following topics.

A) Indian Foreign Relations

The Evolution of India's Foreign Policy, The Functions and Challenges of Indian Defence Policy, Drivers of India's South Asia Policy, Colonialism and Post- Colonialism

B) Global Contexts

Sovereignty, Regimes, States, International Organisations, Non-Governmental Organisations

Unit-5: Political Methodology

The last question that students will face is about political methodology. A question will be so designed to examine how aware students would be about the problems which are inherent in a specific design of research.

Case Studies, Historical and Longitudinal Analyses, Qualitative and Quantitative Approaches, Mixed Methods, Observational and Experimental Data

Reading List

Rom, Mark Carl, Masaki Hidaka, Rachel Bzostek Walker. 2022. Introduction to Political Science. Houston: OpenStax.

Ganguly, Sumit and Eswaran Sridharan. 2024. The Oxford Handbook of Indian Politics. Oxford: Oxford University Press.

Sociology

Exam Format: Essay Questions

Unit 1. Classical and Contemporary Thinkers

Classical Thinkers: Karl Marx: Historical materialism, class conflict- Emile Durkheim: Social facts, division of labour, religion- Max Weber: Social action, bureaucracy, authority- Georg Simmel: Social types, forms of interaction

Contemporary Thinkers- Pierre Bourdieu: Habitus, cultural capital- Anthony Giddens: Structuration theory- Michel Foucault: Power/knowledge, discourse- Ulrich Beck: Risk society, reflexive modernisation, global risks

Unit 2. Indian Sociological Thinkers

G.S. Ghurye: Caste and race, Indian society- M.N. Srinivas: Sanskritization, Westernization- A.R. Desai: Marxist approach to Indian society- Dipankar Gupta: Modernity and social change

Unit 3. Political Sociology

State, Power, and Legitimacy- Political Participation and Civil Society- Identity Politics and Citizenship

Unit 4. Caste in India

Sanskritization- Westernization- Modernization- Islam and caste- Social mobility

Unit 5. Contemporary Social Issues

Globalization- Environment and Ecology- Platform labour and gig economy- Gender-based violence- Digital inequality

Unit 6. Rural and Urban Sociology

City and space: Urban experience and spatial inequality- Urban planning and governance- Migration and urban segregation

Important Readings

- Peter Berger – *Invitation to Sociology*
- Haralambos and Holborn – *Sociology: Themes and Perspectives*
- B.R. Ambedkar – *Annihilation of Caste*
- Manuel Castells – *The Rise of the Network Society*
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