



## SYLLABUS FOR Ph.D. ENTRANCE TEST

### PART-A

#### RESEARCH METHODOLOGY

#### अनुसंधान पद्धति

Part-A shall consist of 50 objective type compulsory questions of 1 mark each based on research methodology. It shall be of generic nature, intended to assess the research aptitude of the candidate. It will primarily be designed to test reasoning ability, data interpretation, and quantitative aptitude of the candidate.

भाग-ए में शोध पद्धति पर आधारित 1 अंक के 50 वस्तुनिष्ठ प्रकार के अनिवार्य प्रश्न होंगे। यह सामान्य प्रकृति का होगा, जिसका उद्देश्य उम्मीदवार की अनुसंधान योग्यता का आकलन करना है। यह मुख्य रूप से उम्मीदवार की तर्क क्षमता, डेटा व्याख्या और मात्रात्मक योग्यता का परीक्षण करने के लिए डिज़ाइन किया जाएगा।

#### Unit-1

##### Data Interpretation:

Bar charts - Simple, Stacked, Composite Bar charts, Caselets & Tables, Data Analysis, Data comparison from Table, Graphs, Line Graphs, Data Sufficiency, Pie charts.

##### डेटा व्याख्या :

बार चार्ट – सरल, स्टैकड, समग्र बार चार्ट, केसलेट और टेबल, डेटा विल्लेषण, टेबल से डेटा तुलना, ग्राफ़, लाइन, ग्राफ़, डेटा पर्याप्तता, पाई चार्ट।

#### Unit-2

##### Quantitative Ability:

Simplifications, Number system, Averages, Ratio & Proportion, LCM and HCF, Percentages, Profit and Loss, Interest (Simple and Compound), Speed, Time and Distance, Area, Time and Work, Number System, Progressions, Algebra

##### मात्रात्मक क्षमता :

सरलीकरण, संख्या प्रणाली, औसत, अनुपात और अनुपात, एलसीएम और एचसीएफ, प्रतिशत, लाभ और हानि, ब्याज (साधारण और यौगिक), गति, समय और दूरी क्षेत्र समय और कार्य, संख्या प्रणाली, प्रगति, बीजगणित

#### Unit-3

##### Logical Reasoning:

Analogy, Classification, Series, Coding-Decoding, Direction Sense, Mathematical Operations, Arithmetical Reasoning, Inserting the Missing Character, Number, Ranking and Time Sequence Test, Eligibility Test, Representation through Venn-diagrams, Number & symbols ordering, Comprehension questions, Statement & assumptions, Statement & conclusions, Statement & actions.

**तार्किक विचार :**

सादृश्य, वर्गीकरण, श्रृंखला, कोडिंग-डिकोडिंग, डायरेक्शन सेंस, गणितीय संचालन, अंकगणितीय तर्क, लापता को सम्मिलित करना, संख्या, रैंकिंग और समय अनुक्रम परीक्षण, पात्रता परीक्षा, वेन-आरेखों के माध्यम से प्रतिनिधित्व, संख्या और प्रतीकों का क्रम, बोध प्रश्न, कथन और धारणाएँ, कथन और निष्कर्ष, कथन और कार्य।

## **Unit-4**

**Research Aptitude:**

Data, Measures of Central Tendency, Dispersion: Standard Deviation, Correlation and Simple Regression, Meaning, types & Characteristics of Research. Research Ethics, Mean, Median and Mode.

**अनुसंधान योग्यता :**

डेटा, केंद्रीय प्रवृत्ति के माप, फैलावरु मानक विचलन, सहसंबंध और सरल प्रतिगमन, अर्थ, प्रकार और अनुसंधान के लक्षण। अनुसंधान नैतिकता, माध्य, माध्यिका और विधा।

## **Unit-5**

**General Knowledge & Awareness:**

Current Affairs, Books and Authors, Famous Personalities, music, Awards, Sports, Indian Politics, Geography, Indian History, Science and Technology & Inventions.

**सामान्य ज्ञान और जागरूकता :**

करंट अफेयर्स, किताबें और लेखक, प्रसिद्ध व्यक्तित्व, संगीत, पुरस्कार, खेल, भारतीयराजनीति, भूगोल, भारतीय इतिहास, विज्ञान और प्रौद्योगिकी और आविष्कार।



## SYLLABUS FOR Ph.D. ENTRANCE TEST IN PSYCHOLOGY

### PART-B

Part-B shall also consist of 50 objective type compulsory questions of 1 mark each based on the syllabus below:

#### 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.

#### 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.

#### 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.

#### **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]

#### **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.

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

#### **6. 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

### **7. 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, Canon-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].

### **8. 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.

### **9. 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, organizational set up and techniques Counselling: Process, skills, and techniques

## **10. 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.