

## SYLLABUS - PSYCHOLOGY

### UNIT- I Understanding Psychology and Biological Processes

- Psychology as a science, nature, and scope, relation with other social and natural sciences; Historical perspectives: Indian and Western; Approaches to Psychology: Behaviouristic, Psychodynamic, Gestalt, Cognitive, & Humanistic Evolutionary, Biological, and sociocultural/contextual
- Biological Basis of Behavior: Genes and Behaviour- Chromosomes Receptors, Effectors, and Adjuster Mechanisms, Genetic Basis of Behavior; Sensory Systems- General and specific sensations, Visual, auditory, and skin, Structure and function; Nervous System- Structure and functions of Peripheral Nervous System (PNS), Central Nervous System (CNS), Neurotransmitters. Neurons: Structure, functions, types, neural impulse, synaptic transmission. Psychoneuroendocrinology. Neurophysiological methods- EEG, CT scan, PET, MRI, & fMRI. Neuropsychological assessment- Approaches and popular neuropsychological assessment batteries- Luria-Nebraska, AIIMS neuropsychological assessment battery.

### UNIT: II Attention and Perceptual Processes

- Attention: Nature and basic determinants, Types- Selective, Divided, Sustained; Attentional automaticity, Theories of selective and sustained attention; biological basis of attention.
- Perception: Nature and determinants, Sensory Systems and Psychophysics- Vision and Audition, Major concepts of Psychophysics, Classical and Modern; Laws of perceptual organization, pattern recognition, Picture perception- Depth, distance, and movement; Perceptual Constancy- Size, Shape, and Brightness; Perceptual illusion; Figural After Effect; Perceptual Defence, Cognitive Styles (Field Dependence and Independence); Signal detection theory: Assumptions and applications; Subliminal perception, culture and perception.

### UNIT - III Learning and Memory

- Learning: Fundamental theories of learning- Thorndike, Guthrie, Hull, Tolman; Classical Conditioning- Procedure, phenomena, and related issues; Instrumental learning- Procedure, phenomena, and theoretical issues; Observational Learning- Procedure, phenomena, and related issues; Social Learning Theory; Reinforcement and reinforcement schedules; Applications of classical and instrumental conditioning in behavior modification; Cognitive approaches in learning- Latent learning, observational learning; Verbal learning- Methods, materials, and determinants, generalization, discrimination, Transfer of Learning; Cognitive Learning- Nature and Types.
- Memory: Biological bases of Memory- Encoding, Storage, Retrieval; Stages of memory- Sensory memory, Short-term memory (Working memory), Long-term Memory (Declarative – Episodic and Semantic; Procedural); Theories of Memory- Information Processing Theory, Level of Processing Theory, Modal Model Theory. Theories of Forgetting: Interference, Decay, and Retrieval, Motivated forgetting; Retroactive and Proactive inhibition; Models of Semantic memory, Meta-memory, meta-cognition, Techniques of improving memory.

### UNIT: IV Individual Differences, Thinking, and Creativity

- Intelligence: Nature and types; Biological, Social, Eco-cultural Determinants; Theories- Spearman, Thurston, Guilford, Cattell, Sternberg, Jenson, Gardener, Mayer & Salovey; Goleman; Das, Kar & Parrila; Measurement of Intelligence- Binet test,

Wechsler scale, Raven's progressive matrices, ability, achievement, and aptitude tests; Intelligence tests for Indian children. Culture and Intelligence.

- Thinking: Nature and type, Role of language in thinking; Theories of thinking; Role of concepts in thinking; Concept formation- Nature types and factors, biases in decision making; Factors for better decision making; Problem-solving- Nature, methods, and factors; Reasoning- Deductive and Inductive. Culture and Thinking.
- Creativity: Nature and Types; Theories: Torrance, Getzels & Jackson, Guilford, Wallach & Kogan; Divergent Thinking; factors affecting creative thinking, Relation between intelligence and creativity; Culture and Creativity.

#### **UNIT: V Personality and Social Psychology**

- Personality: Concept and definition of personality; Theories of personality- Psychoanalytic, Neo-Freudian, Social Learning, Psycho-social, Dispositional, Biological, Intra-psychic, Trait and Type, Cognitive Approaches; Biological and Socio-cultural Determinants of personality; Self-concept- Origin and Development; Eastern Perspective in Personality Development- Yoga and Hindu Tradition, Zen Buddhism, Sufism, and Islamic Tradition; Applications of Various approaches of Personality; Personality assessment- Projective tests, personality Inventories, situational test, Culture fair test of Personality.
- Social Psychology: Nature, Approaches, and Methods; Social Cognition- Person Perception, Self-Perception, Social Perception. Attitude- Nature, Formation, Measurement, and Theories of Attitude, Persuasion, Resistance to Change; Attribution- Nature, Theories, Biases, Impression Formation, Attribution Theory, Interpersonal Attraction; Group Processes- Group Formation, Group Effectiveness, and Group Cohesiveness, Group Dynamics, Cooperation & Competition, Conformity & Compliance; Leadership- Nature, Types, Styles, and Theories of Leadership; Altruism and Aggression; Cognitive Dissonance; Social influence [Social Facilitation; Social loafing; prosocial behavior, Peer Pressure, Obedience, Social Power]. Theories of Intergroup Relations [Minimal Group Experiment and Social Identity Theory, Relative Deprivation Theory, Realistic Conflict Theory, Balance Theories, Equity Theory, Social Exchange Theory] Prejudice - Causes and Effects.

#### **UNIT - VI Motivation, Emotion, and Life Span Human Development:**

- Motivation: Concepts- Instincts, Needs, Drives, Incentives, Motivational Cycle, Intrinsic & Extrinsic Motivation, Flow, Frustration of Motives; Biological, and Social Motives; Approaches- Psychoanalytical, Ethological, S-R, Cognitive, Humanistic Approaches, Need Hierarchy Theory; Social motives: Achievement, Affiliation, and Power Motivational Competence and Self-regulation.
- Emotions: Concept and Components; Physiological Correlates of Emotions; Types; Theories of Emotions- James-Lange, Cannon-Bard, Schachter and Singer, Lazarus, Lindsay, Facial-feedback hypothesis of emotion; Emotion Regulation; Biological Basis of Emotions; Conflicts- Sources and Types.
- Life-Span Human Development: Developmental Processes: Nature, Principles, Factors in Development, Critical Periods of Life-Span Development; Stages of Development; Theories of development- Psychoanalytical, Behaviouristic, and Cognitive; Various aspects of development- Sensory-motor, Cognitive, Language, Emotional, Social, and Moral. Piaget's cognitive Development Theory; Information Processing and Social

Learning Theories; Vygotsky's Social Emotional Development; Kohlberg's Theory of Moral Development; Socialization- the role of family, peers, school, culture, and media.

#### **UNIT: VII Psychological Research, Statistics, and Psychometrics.**

- Psychological Research: Nature of scientific research; Hypothesis, Variables - type and control; Types and Techniques of Sampling; Type I & Type II Errors; Research Design- Nature, purpose, and types; Paradigms of psychology- Positivism, Post-positivism, Interpretivism, and Realism; Qualitative and Quantitative Approaches; Methods & Research Design- Experimental, Single-subject, Quasi-experimental, Mixed-Methods, Correlational, Clinical, Longitudinal, Randomized Group, Randomized Block, Repeated Measures & Cross-Sectional, Case Studies, Field Studies and Cross-Cultural Studies, Ex-post Facto, Factorial Design. Methods- Survey, Interview, Questionnaire, Observational, Narrative, and Case Study; Reporting Research in Psychology. Publication Ethics; Replication Crisis; Ethical Issues.
- Statistics: Inferential and Descriptive statistics, Scales of Measurements, Parametric and Non-parametric tests [Sign Test, Wilcoxon Signed rank test, Mann-Whitney test, Kruskal-Wallis test, Friedman, Chi-Square], types, properties, assumptions; Effects of Linear Transformation in - Measures of Central Tendency, Measures of Variability, Correlation (Product moment, Biserial, point-biserial, Tetrachoric correlation), Significance of difference between means, t-test- correlated and uncorrelated sample; Normal Probability Curve-Principles and Applications; Power analysis. Effect size; Assumptions, strategies, tabulation and interpretation of results- Linear Regression, Multivariate Statistics- Multiple & Logistic regression; Factor analysis: Assumptions, Methods, Steps, Rotation, and Interpretation. Basic understanding of Cluster Analysis and Multiple Discriminant Analysis, ANOVA [One-way, Factorial], MANOVA, and ANCOVA.
- Psychometrics: Principles and assumptions of Classical Test Theory, Classification of Psychological tests, Test Construction: Item Writing, Item Analysis. Test Standardization: Reliability, Validity, and Norms; Types of Tests- Intelligence, Aptitude, Achievement, Personality, Attitude, and Interest. Applications of Psychological Tests (Clinical, Counselling, Educational, Organizations, Career and Guidance, Military setups).

#### **UNIT: VIII Psychopathology, Clinical Psychology, and Cognitive Psychology**

- Psychopathology: Concept and Approaches, Classification System: DSM-V and ICD-11; Causes of Abnormality- Biogenic, Psychogenic, and Sociogenic. Etiology, Clinical Picture, Diagnostic Criteria and Types- Anxiety disorders, Mood disorders, Schizophrenia, Paranoia, Personality disorder, Psychosomatic Disorders, Substance-related disorder, Neurodevelopmental disorders, sleep and wake-related disorders.
- Clinical Psychology: History-Indian and Western; Concepts, Issues and Models of Clinical Psychology- Psychodynamic, Behavioral, Interpersonal; Psychotherapies- Psychoanalytic, Client-centred, CBT, DBT, REBT, Solution Focused Therapy, Brief Psychotherapy, Gestalt Therapy, Logo Therapy, Group and Family Therapy and Biofeedback; Assessment- Tests- Intelligence, Personality, MSE, Clinical Scales, Neuropsychological testing; Ethics in clinical practice.
- Cognitive Psychology: Nature, History and Scope; Paradigms of Cognitive Psychology; Consciousness, Mental Representation; Cognitive Development across

age span; Representation of Knowledge and Language; Cognitive Neuro Science- nature and applications

#### **UNIT: IX Counselling, Health, and Educational Psychology**

- Counselling Psychology: Need, Nature, Goals, and Principles of Guidance & Counselling; Counselling approaches - Directive, Non-directive; Roles and Functions of Counsellors and their Professional Training; Organizing Guidance Program in School and Colleges; Approaches to Counselling: Directive, Non-Directive, Behaviouristic, Humanistic, Existential, Gestalt and Eclectic; Techniques of Guidance: Group Guidance, Role Playing, Career Counselling; Counselling – Origin, Scope, and Structure; Contemporary Theories of Counselling; Individual Counselling; Counselling in Specific Areas – Family, Marriage, Women.
- Health Psychology: Definition & Scope; Approaches; Health models- damaging health and health-promoting lifestyles and behaviors; Lifestyle and Chronic diseases [Diabetes, Hypertension, Coronary Heart Disease], Psychoneuroimmunology [Cancer, HIV/AIDS]; Origin and Nature of Happiness, well-being, and self-growth- Types of wellbeing [Hedonic and Eudemonic], Character Strengths, Resilience, and Post-Traumatic Growth, and Quality of Life; Signature Strengths, Emotional and Spiritual intelligence, Positive Psychological Capital.
- Educational Psychology: Nature, Methods, and Scope, the contribution of Psychology in education, learning processes in the classroom, teacher effectiveness; Behaviouristic Theories- Social learning theories; Teacher-centred methods, student-centered methods; Teacher Effectiveness. Exceptional Children: Gifted, Physically and Mentally Challenged.

#### **UNIT: X Organizational & Industrial Psychology and Other Applied Areas of Psychology**

- Organizational & Industrial Psychology: Nature, Scope, and Methods; Job Analysis and Personnel Selection; Training and Development- Principles and Methods, Job Evaluation, Performance Appraisal; Motivation and Work- Theories of Work Motivation-Maslow, Herzberg, Alderfer, McGregor, and Vroom; Leadership-Theories, Job Satisfaction and Industrial Morale; Work and Environment- Work and Fatigue, Man-Machine System, Human Engineering, Equipment Design, Environment Design, Industrial Accidents, and Safety; Management of Organizational Behaviour- Leadership and Management, Decision Making, Communication Process, Group Dynamics; Organizations: Types, Approaches- Systems Approach, Behavioural Approaches, Socialization, and Organizational Climate; Human Resource Management.
- Applied Areas of Psychology: Sports Psychology- Improving the Performance of Sport, Exercising, and Physical Fitness; Environmental Psychology- Effect of Noise and Pollution, Effects of Crowding, and Population Density. Effect of sensory deprivation; Community Psychology- Perspectives, Methods, Types, Levels, Preventing Problem Behavior and Promoting Social Competence, Effective Community Change Initiatives; Stress- Meaning and characteristics, reaction to stress; Work, Stress and Health, Health Promotion; Stress management strategies [Biofeedback, Music therapy, Breathing exercises, Progressive Muscular Relaxation, Guided Imagery, Mindfulness, Meditation, Yogasana, Stress Inoculation Training].