UNIVERSITY GRANTS COMMISSION

NET BUREAU

Code No. 04

Subject: PSYCHOLOGY

SYLLABUS

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.

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.