

## M. A. STRUCTURE IN PSYCHOLOGY

### SEMESTER-CREDIT SYSTEM TO BE IMPLEMENTED IN THE UNIVERSITY DEPARTMENT OF PSYCHOLOGY

The present programme will consist of four semesters, each semester carrying 16 credits.

#### SEMESTER I

- EP 101 Cognitive Processes (Credits PSY 1 to PSY 4)
- EP 102 Personality (Credits PSY 5 to PSY 8)
- EP 103 Statistical Methods (Credits PSY 9 to PSY 12)
- EP 104 Research Methodology - I (Credits PSY 13 to PSY 16)

#### SEMESTER II

- EP 205 Learning and Memory (Credits PSY 17 to PSY 20)
- EP 206 Motivation and Emotion (Credits PSY 21 to PSY 24)
- EP 207 Psychological Testing (Credits PSY 25 to PSY 28)
- EP 208 Research Methodology - II (Credits PSY 29 to PSY 32)

## **SEMESTER I**

### **EP 101: COGNITIVE PROCESSES**

**CREDITS: 4 (PSY 1 - PSY 4)**

#### **Objectives:**

To acquaint the students with the

1. processes involved in sensation and perception
2. relation of cognition in other psychological phenomena
3. major theories and models of cognition
4. applications of experimental skills in the study of cognitive processes
5. physiological basis of cognitive processes

#### **Contents**

##### **PSY 1: Nature and Importance of Cognitive Psychology**

1. The domain of cognitive psychology
2. Developmental approach to cognition: Theories of cognitive development - Piaget, Vygotsky
3. Physiological aspects of cognition: Perceptual powers among infants
4. Problem solving- Human: Algorithms and heuristics, rational reasoning, creativity

##### **PSY 2: Sensation and Perception**

1. Detection of sensory signals: Need for signal detection theory; applications of signal detection theory
2. Models of Perception: Gestalt, behavioristic and functionalistic. Ames's Gibson's and Hebb's contributions, contemporary trends
3. Psychological and cultural influences on perception
4. Speech perception: Theories of speech perception: Correlation filtering, analysis by synthesis, motor theory

##### **PSY 3: Pattern Recognition**

1. Classical approaches to visual pattern recognition: Gestalt
2. Modern approaches to visual pattern recognition: Feature analysis, template matching prototype matching, pandemonium, bottom-up/top-down processing
3. Role of perceiver in pattern recognition – subjective factors, central determinants in perceptual theory, simultaneous and successive processing

##### **PSY 4: Other Cognitive Phenomena (current issues in cognitive psychology)**

1. Reading: Word recognition, discovery of meaning, interference, and meta comprehension, phonemic description and segmentation
2. Writing: Language and thought, context errors, bilingualism
3. Cognitive phenomena: Cognitive structure, cognitive style, cognitive consistency, cognitive map
4. Applications of cognitive psychology and artificial intelligence

### **Books for Reading**

1. Galotti, K. M. (2000). *Cognitive psychology: In and out of laboratory* (2<sup>nd</sup> ed.). Belmont Brooks: Cole & Wadsworth.
2. Best, J. B. (1999). *Cognitive psychology* (5<sup>th</sup> ed.). New York: ITP Pub. Comp.
3. Guenther, R. K. (1998). *Human cognition*. New Jersey: Prentice Hall
4. Sternberg, R. J. (1996). *Cognitive psychology*. New York: Harcourt Brace College Publishers.
5. Matlin, M. W. (1994). *Cognition* (3<sup>rd</sup> ed.). New Delhi: Prism India.
6. Solso, R. L. (1998). *Cognitive psychology* (5<sup>th</sup> ed.). Boston: Allyn & Bacon.
7. Kellogg, R. T. (2003). *Cognitive psychology* (2<sup>nd</sup> ed.). Thousand Oaks: Sage Publications.
8. Wade, C. & Tavis, C. (2007). *Psychology*. New Delhi: Dorling Kindersley Pvt. Ltd.
9. Jahnke, J. C. & Nowaczyk, R. H. (1998). *Cognition*. Upper Saddle NJ: Prentice Hall.

### **Books for Reference**

1. Bourne, L. E., Dominowski, R. L., & Loftus, E. F. (1979). *Cognitive processes*. New Jersey: Prentice Hall.
2. Gavin, H. (1998). *The essence of cognitive psychology*. London: Prentice Hall.
3. Cohen, G. (1983). *Psychology of cognition* (2<sup>nd</sup> ed.). London: Academic Press.
4. Howes, M. B. (1990). *The psychology of human cognition*. New York: Pergamon Press.
5. Malim, T. (1994). *Cognitive processes*. London: MacMillan.
6. Corens, S., Ward, L. M., & Enns, J. (1994). *Sensation and perception*. New York: Harcourt Brace & Co.

7. Kaplan, S. & Kaplan, R. (1982). *Cognition and environment*. New York: Praeger Publishers.
8. Messor, D. & Miller, S. (1999). *Exploring developmental psychology*. London: Arnold.
9. Flavell, J. H. (1985). *Cognitive development* (2<sup>nd</sup> ed.). New Jersey: Prentice Hall.
10. Reed, S. K. (1988). *Cognition: Theory and application* (3<sup>rd</sup> ed.). California: Brooks/Cole Pub. Company.

## **SEMESTER I**

### **EP 102: PERSONALITY**

#### **CREDITS 4 (PSY 5- PSY 8)**

#### **Objectives:**

1. To acquaint the students with the theories of personality.
2. To develop skills for the analysis of people through different personality theories.
3. Application of different personality theories in different contexts of life.

#### **Content**

##### **PSY-5 Nature and Determinants of Personality**

1. Definition: Issues in defining personality
2. Nature-nurture controversy
3. Physical determinants of personality and behavior
4. Social determinants of personality and behavior
5. Cultural influences on personality

##### **PSY-6 Freudian Psychoanalysis and Neo-Freudians**

1. Sigmund Freud
2. Carl Jung
3. Alfred Adler
4. Karen Horney
5. Erik Erikson

##### **PSY-7 Learning, Cognitive, and Humanistic Approaches to Personality**

1. B. F. Skinner
2. Albert Bandura
3. Julian Rotter
4. Abraham Maslow
5. Carl Rogers

##### **PSY-8 Trait Perspective in Personality**

1. Raymond Cattell's 16 PF
2. Hans J. Eysenck's PEN model
3. Five Factor model of personality
4. Cross-cultural/nations empirical research on personality (MMPI, EPQ, NEO-PI-R)
5. Experimental personality research: Extraversion
6. Person-situation interaction
7. Consistency and temporal stability of personality
8. Issues in social desirability
9. Indian approach: Triguna model

### **Books for Reading**

- 1) Hall, C. S., Lindsey, G., & Campbell, J. B. (1998). *Theories of personality*. New York: John Wiley & Sons.
- 2) Feshbach, S., & Weiner, B. (1991). (3rd edn). *Personality*. Toronto: Heath & Co.
- 3) London, H., & Exner, J. E. (1978). *Dimensions of personality*. New York: John Wiley & Sons.
- 4) Pervin, L. A. (1996). *The science of personality*. New York: John Wiley & Sons.
- 5) Kundu, C.L. (1989). *Personality development*. New Delhi: Sterling pub
- 6) Kuppaswamy, B. (1985). *Elements of ancient psychology*. New Delhi: Van Educational Books.
- 7) Tart, C.T. (ed.). (1975). *Transpersonal psychology*. New York: Harper & Row.
- 8) Allport, G.W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart and Winston.
- 9) Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology*, 53, 133-160.
- 10) McCrae, R. R., & Costa, P. T. (1983). Social Desirability Scales: More substance than style. *Journal of Consulting and Clinical Psychology*, 51-882-888.
- 11) Cheung, F. M. (2004). Use of Western and indigenously developed personality tests in Asia. *Applied Psychology: An International Review*. 53-173-191.

### **Books for Reference**

- 1) Kao, H. S. R. & Sinha (eds.) (1997). *Asian perspectives on psychology*. New Delhi: Sage.
2. Kline, P. (1983). *Personality measurement and theory*. London: Hutchinson.
- 3) McCrae, R. R. & Allik, J. (Eds.) (2002). *Five- factor model across cultures*. Dordrecht: Netherlands: Kluwer.

## **SEMESTER I**

### **EP-103: STATISTICAL METHODS**

#### **CREDITS 4 (PSY 9 to PSY 12)**

#### Objectives:

1. To acquaint the students and make them understand the different statistical methods with their uses and interpretations
2. To develop computational skills in students, to enable them to analyse the data of practicals, project work, and dissertation.

#### PSY 9. Elementary Statistics, Probability and Correlation

##### 9A. Elementary statistics and probability

1. Frequency distribution, Measures of central tendency and variability
2. Percentiles, Percentile ranks, Standard scores
3. Principles of probability and normal distribution
4. Areas under normal probability curve
5. Applications of normal distribution

##### 9B. Correlation

1. Meaning and types of correlation
2. Product-moment correlation and bivariate linear regression
3. Rank difference correlation, Point-biserial correlation, Phi-coefficient
4. Biserial and Tetrachoric correlation
5. Partial correlation, Multiple correlation, and Multiple regression

#### PSY 10. Statistical Estimations and Inferences

1. Principles of sampling
2. Inferences regarding averages and some other statistics
3. Significance of differences for means, variances, correlation coefficients
4. Power and effect size.

#### PSY 11. Analysis of Variance

1. Assumptions of analysis of variance
2. One-way and Two-way ANOVA
3. Planned and unplanned comparisons after ANOVA
4. Analysis of covariance

## PSY 12. Non-Parametric or Distribution Free Statistics

1. Chi-square and its various applications
2. Test of differences with uncorrelated data. The Mann-Whitney U test, the Kruskal-Wallis test.
3. Test of differences with correlated data- sign test, Wilcoxon signed ranks test
4. Brief information on different nonparametric test: Chi-square test, K-S test
5. Statistical software and computer applications

### **Important Note:**

Calculation exercises in the question paper on this course shall be restricted to the following:

1. Percentiles and standard Scores
2. Applications of normal probability curve
3. Product-moment correlation
4. Simple linear regression
5. One-way and two way ANOVA
6. Chi-square test and Mann- Whitney U test

### **Books for Reading**

1. Minium, E.W., King, B. M., Bear, G.(1995).*Statistical reasoning in psychology and education*. N.Y.: John Wiley & Sons.
2. Howell, D.C.(1997).*Statistical methods for psychology* (4th ed.). New York: Duxbury Press
3. Guilford, J.P. and Fruchter, B.(1985). *Fundamental statistics in psychology and education* (6th ed.). McGraw-Hill.
4. Sarma, K.V.S. (2001).*Statistics made simple : Do it yourself on PC*. New Delhi: Prentice-Hall.
5. Welkowitz, J., Emen, R. B., and Cohen, J.(1982). *Introductory statistics for the behavioural sciences* (3rd ed.) N.Y.: Academic Press.
6. Black,T.R.(1999).*Doing quantitative research in the social sciences: An integrated approach to research design, measurement and statistics*. London: Sage Publication.

### **Books for References**

1. Fergusson, G. A. (1976). *Statistical analysis in psychology and education*. McGraw-Hill
2. Glass, G.V. and Stanley, J.C. (1970). *Statistical methods in education and psychology*. Prentice- Hall.



3. Kurtz,A.K. & Mayo,S.T. (1979). *Statistical methods in education and psychology*. Narosa (Springer)
- 4.Lomax, R.G.(1998). *Statistical Concepts : A second course for education and behavioral sciences*, New Jersey : Lawrence Erlbaum Assoc. Inc.
- 5.Foster, J. J. (2001). *Data analysis: Using SPSS for windows*. London: Sage Publication.
- 6.Einspruch, E. L. (2004). *Next steps with SPSS*. Thousand Oaks: Sage Publication.

## **SEMESTER I**

### **EP 104: RESEARCH METHODOLOGY I**

**CREDITS: 4 (PSY 13 - PSY 16)**

#### **Objectives:**

To acquaint the students

- 1.The various steps in research process.
- 2.How to prepare research proposal, execute it, analyze the results, and prepare the report.
- 3.The basic terminology of advanced research techniques so that they can follow the research reports and papers in different branches of psychology.
- 4.The elementary mathematical basis of quantitative techniques.

#### **Contents:**

##### **PSY 13: The Research Process**

- 1.Characteristics of scientific method
- 2.Problems and hypotheses
- 3.Variables: Types, operational definitions
- 4.Literature review, Evaluating Internet literature
- 5.Types of psychological investigations: Laboratory experiments, Field experiments, Ex-post facto field studies
- 6.Pure and applied research
- 7.Ethical issues in psychological research

##### **PSY 14: Survey Research**

- 1.Characteristics and uses of surveys
- 2.Sampling techniques
- 3.Survey methods: Observation, mail surveys (questionnaires), personal interviews, telephone interviews, internet surveys
- 4.Survey research designs: Cross-sectional, successive independent samples, and longitudinal designs
- 5.Correspondence between reported and actual behavior

##### **PSY 15: Mathematical Basis of Quantitative Techniques in Behavioral Research**

- 1.Elementary calculus: Differentiation; minima-maxima; applications to least-square method, curve fitting, and simple bivariate regression; concept of integration
- 2.Matrices and vectors: Basic concepts, types, elementary operations, determinants, linear dependence, eigenvalues and eigenvectors, utility of matrices and vectors in multivariate statistical methods
- 3.Logarithms and elementary trigonometric functions; Correlation as a cosine

#### PSY 16: Scaling

1. Types of scales: Nominal, ordinal, interval, and ratio
2. Distinction between psychophysical and psychological scaling
3. JND scales, Fechner's law
4. Direct ratio scaling methods, Stevens' law
5. Thurstone's law of comparative judgments
6. Thurstonean scaling methods: Classical Thurstonean methods; application of Luce's Choice Axiom to paired comparisons

#### Books for Reading

1. Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2005). *Research methods in psychology* (7<sup>th</sup> ed.). Boston, M.A.: McGraw-Hill.
2. McBurney, D. H. & White, T. L. (2007). *Research methods* (7<sup>th</sup> ed.). Belmont CA: Thomson/Wadsworth.
3. Elmes, D. G., Kantowitz, B. H., & Roediger, H. L. III (1999). *Research methods in psychology* (6<sup>th</sup> ed.). Pacific Grove: Brooks/Cole Publishing Company.
4. Rosnow, R. L. & Rosenthal, R. (1999). *Beginning behavioral research: A conceptual primer* (3<sup>rd</sup> ed.). Upper Saddle River NJ: Prentice Hall.
5. Haslam, S. A. & McGarty, C. (2003). *Research methods and statistics in psychology*. London: Sage Publications.
6. Kerlinger, F. N. (2000). *Foundations of behavioral research* (4<sup>th</sup> ed.). New York: Harcourt.
7. Hagle, T. M. (1995). *Basic math for social scientists: Concepts*. Thousand Oaks: Sage Publications.
8. Falmagne, J. (1985). *Elements of psychophysical theory*. Oxford: Oxford University Press.

#### Books for Reference

1. Edwards, A. L. (1969). *Techniques of attitude scale construction*. Mumbai: Vakil, Feffer and Simons.
2. D'Amato, M. R. (1970). *Experimental psychology: Methodology, perspectives and learning* (TMH ed.). New Delhi: McGraw-Hill.
3. Goode, W. J. & Hatt, P. K. (1981). *Methods in social research* (International Students ed.). Auckland: McGraw-Hill.

4. Guilford, J. P. (1975). *Psychometric methods*. New Delhi: Tata McGraw-Hill.
5. Horst, P. (1965). *Factor analysis of data matrices*. New York: Holt, Rinehart & Winston.
6. Lewis, D. (1960). *Quantitative methods in psychology*. New York: McGraw-Hill.
7. Robinson, P. W. (1981). *Fundamentals of experimental psychology* (2<sup>nd</sup> ed.). Englewood Cliffs, NJ: Prentice Hall.

## **SEMESTER II**

### **EP 205: LEARNING AND MEMORY**

**CREDITS: 4 (PSY 17 - PSY 20)**

#### **Objectives:**

To acquaint the students with

1. various types, models and theories of learning.
2. various memory models and organization systems in memory.
3. neurological basis of learning and memory.
4. experimental skills and applications

#### **Contents**

##### **PSY 17: Learning: Conceptual Approaches**

- a. Definition of learning: Theoretical definitions and factual definitions
- b. Types of learning: Verbal learning, other types of learning, relation between learning and performance
- c. Conditioning: Basic concepts, types of conditioning, schedules of reinforcement, verbal conditioning, applications of conditioning
- d. Theories of learning: Guthrie, Hull-Spence and Tolman

##### **PSY 18: Types and Models of Memory**

1. Biological structure of memory
2. Types of memory
3. Unitary and dual process view: Hebb, Waugh and Norman
4. Multi-process view: Atkinson and Shiffrin, Baddeley and others models, storage and retrieval process, visual and auditory sensory memory

##### **PSY19: Assessment and Organization of Memory**

1. Methods of assessment in psychological experiments
2. Neurological assessment of memory
3. Memory dysfunction and forgetting
4. Primary organization
5. Secondary organization: Categorical relatedness, associative relatedness, subjective organization
6. Coding and organization

##### **PSY 20: Neurological Basis of Learning and Memory**

1. Functions of brain in learning
2. Methodological approaches: Physiological changes as dependent and independent variables
3. Important findings and experimental studies
4. Theoretical issues: Changes in synaptic function and structure, changes in cellular chemistry

### **Books for Reading**

1. Galotti, K. M. (2000). *Cognitive psychology: In and out of laboratory* (2<sup>nd</sup> ed.). Belmont Brooks: Cole & Wadsworth.
2. Solso, R. L. (1998). *Cognitive psychology* (5<sup>th</sup> ed.). Boston: Allyn & Bacon.
3. Horton, D. L. & Turnage, T. W. (1976). *Human learning*. New Delhi: Prentice- Hall.
4. Kothurkar, V. K. (1985). *About learning and memory*. New Delhi: Wiley Eastern.
5. Rosenzweig, M. R., Leiman, A. L., & Breedlove, S. M. (1996). *Biological psychology*. Massachusetts: Sinauer Associates Publishers.
6. Matlin, M. W. (1994). *Cognition* (3<sup>rd</sup> ed.). New Delhi: Prism India.
7. Emilien, G., Durlach, C., Antoniadis, E., Linden, M. Vd., & Maloteaux, J. M. (2004). *Memory*. New York: Psychology Press.

### **Books for Reference**

1. Horn, G. (1985). *Memory imprinting and the brain*. Oxford: Clarendon Press.
2. Cohen, G. (1983). *Psychology of cognition* (2<sup>nd</sup> ed.). London: Academic Press.
3. Dunham, P. (1977). *Experimental psychology: Theory and practice*. New York: Harper & Row.
4. Guenther, R. K. (1998). *Human cognition*. New Jersey: Prentice-Hall.
5. Chaplin, J. P. & Krawiec, T. S. (1970). *Systems and theories of psychology*. New York: Holt, Rinehart & Winston.
6. Best, J. B. (1999). *Cognitive Psychology* (5<sup>th</sup> ed.). New York: ITP Pub.
7. Barber, P. (1988). *Applied cognitive psychology*. London: Methuen.
8. McBurney, D. & Collings, V. (1977). *Introduction to sensation/perception*. Upper Saddle, NJ: Prentice Hall.
9. Wade, C. & Tavis, C. (2007). *Psychology*. New Delhi: Dorling Kindersley Pvt.Ltd
10. Guyton, A. C. & Hall, J. E. (2006). *Text book of medical physiology*. (11<sup>th</sup> ed.). New Delhi: Reed Elsevier.
11. Jahnke, J. C. & Nowaczyk, R. H. (1998). *Cognition*. Upper Saddle NJ: Prentice Hall.

12. Carlson, N. R. (1991). *Physiology of behavior* (4<sup>th</sup> ed.). Boston: Allyn & Bacon.
13. Kellogg, R. T. (2003). *Cognitive psychology* (2<sup>nd</sup> ed.). Thousand Oaks: Sage Publications.

## **SEMESTER II**

### **EP 206: MOTIVATION AND EMOTION**

**CREDITS: 4 (PSY 21- PSY 24)**

#### **Objectives:**

1. To acquaint the students with the theories of motivation and emotion.
2. To develop in the students an understanding of the relationship between motivation and emotion.
3. To introduce the application of the knowledge of motivation and emotion in different contexts of life.

#### **Content:**

##### **PSY-21: Theories of Motivation and Emotion**

- 1) Relationship between motivation and emotion
- 2) Motivation: Murray, Atkinson, and McClelland
- 3) Emotion: James-Lange, Cannon-Bard, Schachter-Singer, Russel, Plutchik, Zajonc, Lazarus, Tomkins, Scherer, Frijda

##### **PSY-22: Physiological Bases of Motivation and Emotion**

1. Autonomic nervous system
2. Hormonal changes
3. Arousal theory
4. Role of Central Nervous System and arousal
5. Laterality and emotions
6. Muscle tension

##### **PSY-23: Positive and Negative Emotions**

1. Depression: Conceptualization and its relation to health
2. Stress: Immunity, illness, coping
3. Anxiety: State-trait model, and its relation to health and performance
4. Anger: Causes, state-trait model, and its relation to health
5. Positive emotions: Fredrickson's Broaden-and Build Theory of Positive Emotions, Undoing effects of positive emotions (Fredrickson), Benefits of positive emotions (Fredrickson), Hope
6. Emotional intelligence (Mayer & Salovey, 1997): Issues in conceptualizing emotional intelligence.



## PSY-24: Cultural Approaches to Motivation and Emotion

- 1) Similarities in elicitation and manifestation of emotions across the cultures
- 2) Differences in elicitation and manifestation of emotions across the cultures
- 3) Affect valuation theory (Tsai, Knutson, & Fung, 2006)
- 4) Similarities in motivation across cultures
- 5) Differences in motivation across cultures

### Books for Reading

1. Buck, R. (1988). *Human motivation and emotion*. New York: John Wiley & Sons.
2. Frijda, N. H. (1986). *The emotions*. London: Cambridge University Press.
3. Ram, U. (Ed.). (1998). *Suffering and stress management: East versus West*. Pune: Deepa.
4. Misra, G. (Ed.) (1999). *Psychological perspectives on stress and health*. New Delhi: Concept.
6. Snyder, C. R. (Ed.) (1999). *Coping: The psychology of what works*. New York: Oxford University Press.
7. Salovey, P., & Sluyter, D. (Eds.) (1997). *Emotional development and emotional intelligence: Implications for educators*. New York: Basic Books.
8. Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90, 288-307.
9. Mesquita, B., & Frijda, N. H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112, 179-204.
10. Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 479-514.
11. Fredrickson, B. (2001). The role of positive emotions in positive psychology: The Broaden-and-Build Theory of Positive Emotions. *American Psychologist*, 56, 218-226.
12. Fredrickson, B. L., Mancuso, R. A., Branigan, Ch., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion*, 24, 237-258.
13. Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84, 365-376.

14. Scherer, K. R. (1984). Emotion as a multicomponent process: A model and some cross-cultural data. In P. Shaver (Ed.), *Review of personality and social psychology*, vol. 5. (pp. 37-63). Beverly Hills, CA: Sage.
15. Hockenbury, D. H., & Hockenbury, S. E. (1997). *Psychology*. New York: Worth.

### **Books for Reference**

1. Pestonjee, D.M., Pareek, U. & Agrawal, R. (Eds.). (1999). *Studies in stress and its management*. New Delhi: Oxford & IBH.
2. Kassinove, H. (Ed.) (1995). *Anger disorders: Definition, diagnosis and treatment*. Washington, D.C.: Taylor & Francis.
3. Kassinove, H. & Tafrate, R.R. (2002). *Anger management: The complete treatment guidebook for practitioners*. Atascadero, CA: Impact.
4. Thingujam, N. S. (2004). Current trend and future perspective on emotional intelligence. *Psychological Studies*, 49, 155-166.
6. Borod, J. (Ed.) (2000). *The neuropsychology of emotion*. Oxford: Oxford University Press.
7. Berry, J. E., Dasen, P. B., & Saraswathi, T.S. (1997). *Handbook of cross-cultural psychology. Vol. 2: Basic processes and developmental psychology*. New York: Oxford University Press.
8. Ekman, P., & Davidson, R.J. (1995). *The nature of emotion: Fundamental questions*. New York: Oxford University Press.
9. Taylor, S. E. (1999). *Health psychology*. New Delhi: McGraw-Hill.

**SEMESTER II**  
**EP-207 : PSYCHOLOGICAL TESTING**  
**CREDITS 4 (PSY 25 to PSY 28)**

**Objectives:**

1. To acquaint the students with psychometric theory and principles of test construction
2. To develop understanding about various types of psychological tests and their application in various fields.

Note: While teaching the tests, whenever possible, reference to Indian adaptation/version may be made.

**Contents:**

PSY 25: Nature of Psychological Tests

1. Principle characteristics of psychological tests.
2. Uses and types of psychological tests.
3. Test construction
4. Item analysis
5. Norms and their types

PSY 26: Reliability and Validity

1. The concept and types of reliability, generalizability analysis
2. Standard error of measurement
3. Types of validity
4. Test validity and decision theory

PSY 27. Intelligence and Ability Tests

1. Individual tests and group tests : Stanford-Binet scales, Wechsler Scales ( WAIS, WISC), Kaufman Scales, Differential Ability Scales ( DAS), SAT, GRE.
2. Performance tests and non-language (Multicultural) tests-MSCA, Piagetian scales, PPVT, Cattell's culture fair test, RPMT.
3. Multiple aptitude tests-PMA, DAT, GATB, Tests of creative aptitudes
4. Special aptitude tests
5. Educational tests, Occupational tests, Clinical and neuropsychological assessment.

## PSY 28. Personality Tests and Environmental Assessment

1. Self-report inventories: SCL-90R, MMPI, 16PF, EPQ-R, NEO- PI-R, EPPS.
2. Interest and attitude measurement: Strong Interest Inventory, KOIS, Attitude scales: Thurstone type, Guttman Type, Likert Type.
3. Projective techniques
4. Situational tests
5. Self-concept and personal constructs
6. Assessment of environment : Home, education and physical environment

### Books for Reading

1. Anastasi, A.& Urbina, S.(2003). *Psychological testing*. New Delhi: Pearson Education.
3. Anastasi,A.(1988).*Psychological testing*. New York : Macmillan.
4. Cronbach,L.J.(1984).*Essentials of psychological testing* (4th ed.). Harper and Row.

### Books for Reference

1. Nunnally,J.C.(1981). *Psychometric theory*. New Delhi: Tata McGraw Hill
2. Chadha,N.K.(1996).*Theory and practice of psychometry*. New Delhi: New Age International Ltd.
3. Singh, A. K.(1986).Tests, measurements and research methods in behavioral sciences. New Delhi : Tata McGraw-Hill
4. Aiken, L.R.(1996).*Rating scales and checklists: Evaluating behaviour, personality, and attitudes*. New York : John Wiley
5. Guilford, J.P.(1954). *Psychometric methods*. McGraw Hill
6. Ghiselli, E.E. and Campbell, J.P. Zedek, S.(19 81). *Measurement theory for the behavioral sciences*. W.H. Freeman
7. Kline, P.(1983). *Personality measurement and theory*. Hutchinson.

## **SEMESTER II**

### **EP 208: RESEARCH METHODOLOGY II**

**CREDITS: 4 (PSY 29 - PSY 32)**

#### **Objectives:**

To acquaint the students with

1. The various steps in research process.
2. How to prepare research proposal and research design, execute it, analyze the results, and prepare the report.
3. The basic terminology of advanced research techniques so that they can follow the research reports and papers in different branches of psychology.
4. The elementary mathematical basis of quantitative techniques.

#### **Contents:**

##### **PSY 29: Experimental Designs**

1. Definition and criteria for classifying experimental designs
2. Two-group designs
3. Multi-group designs with single factor (independent variable)
4. Factorial designs
5. Distinction among between-group designs, repeated measures designs, mixed designs, and nested designs.

##### **PSY 30: Quasi-experimental Designs**

1. Characteristics of quasi-experimentation and quasi-experimental designs
2. One group designs
3. Non-equivalent control group designs
4. Time series
5. Regression-discontinuity design, cohorts design
6. Utility of quasi-experimental design in policy and programme evaluation research.

##### **PSY 31: Multivariate data analysis I**

1. Factor analysis: Basic terms
2. Factor analysis: Overview of extraction methods
3. Factor analysis: Overview of rotation methods
4. Higher order factoring
5. Confirmatory factor analysis
6. Statistical software and computer applications.

##### **PSY 32: Multivariate data analysis II and Proposal and Report Writing**

1. Multiple regression
2. Canonical correlation

3. Multivariate analysis of variance, Discriminant function analysis
4. Path analysis and structural equations
5. Multidimensional scaling
6. Multivariate analysis of frequency data
7. Statistical software
8. Writing a research proposal
9. Writing a research report.

### **Books for Reading**

1. Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5<sup>th</sup> ed.). Needham Heights, MA: Allyn & Bacon, Inc.
2. Gorsuch, R. L. (1983). *Factor analysis* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
3. Nunnally, J.C. & Bernstein, I.H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
4. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2003). *Multivariate data analysis* (5<sup>th</sup> ed.). New Delhi: Pearson Education, Inc.
5. Broota, K. D. (1992). *Experimental design in behavioural research* (2<sup>nd</sup> ed.). New Delhi: Wiley Eastern Ltd.
6. Edwards, A. L. (1985). *Experimental designs in psychological research*. New York: Harper & Row.
7. Bickman, L., Rog, D. J. (Eds.) (1998). *Hand book of applied social research methods*. Thousand Oaks CA: Sage Publications.
8. Smith, R. A. & Davis, S. F. (1997). *The psychologist as detective: An introduction to conducting research in psychology*. Upper Saddle River NJ: Prentice Hall.
9. Robinson, P. W. (1981). *Fundamentals of experimental psychology* (2<sup>nd</sup> ed.). Englewood Cliffs, NJ: Prentice Hall.

### **Books for Reference**

1. Locke, L. F., Sliverman, S. J., & Spirduso, W. W. (2004). *Reading and understanding research* (2<sup>nd</sup> ed.). Thousand Oaks: Sage Publications.
2. Tinsley, H. E. A. & Brown, S. D. (2000). *Handbook of applied multivariate statistics and mathematical modeling*. San Diego: Academic Press.
3. Rosnow, R. L., & Rosenthal, R. (1999). *Beginning behavioral research: A conceptual primer* (3<sup>rd</sup> ed.). Upper Saddle River NJ: Prentice Hall.

