

UNIVERSITY OF PUNE, PUNE 7

Syllabus for M.A. Part I

(Semester Credit - point System to be implemented from 2013-14 at All Centers)

* The courses of semester I & II are compulsory courses. The Present Programme will consist of four semesters (Two year), each semester carrying 16 credits

Semester I

| Paper No. | Paper title |
|------------------|-------------------------------|
| EP 101 | Cognitive Processes |
| EP 102 | Psychological Testing: Theory |
| EP 103 | Statistical Methods |
| EP 104 | Psychology Practical: Tests |

Semester II

| Paper No. | Paper title |
|------------------|-------------------------------------|
| EP 201 | Learning and Memory |
| EP 202 | Psychological Testing: Applications |
| EP 203 | Research Methodology |
| EP 204 | Psychology Practical: Experiments |

SEMESTER I

EP 101: COGNITIVE PROCESSES

OBJECTIVES:

1. To acquaint the students with the processes involved in sensation and perception
 2. To develop insight into one's own and others' behaviour and underlying mental processes,
 3. To enrich students' understanding of major concepts, theoretical perspectives, and empirical findings in cognitive psychology
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Psy.01. NATURE AND IMPORTANCE OF COGNITIVE PSYCHOLOGY [10]

1. Cognitive Psychology: Definition and domains
2. History and methods of cognitive psychology
3. Theories of cognitive development – Piaget, Vygotsky
4. Current paradigms of cognitive psychology – Information processing approach, ecological approach
5. Application: Cognitive style and cognitive map

Psy.2. SENSATION, ATTENTION AND PERCEPTION [10]

1. Sensation - Introduction to psychophysics: Basic concepts and methods.
2. Attention: (a) Functions of attention: Divided attention, selective attention (b) Theories of attention process (c) Signal Detection Theory and vigilance.
3. Perception-approaches: Gestalt, Bottom-Up (feature analysis, template matching, prototypes), Top-Down and Pandemonium
4. Perception: Cross-cultural studies
5. Application: Subliminal perception, perceptual defense, and extra-sensory perception.

Psy.3. LANGUAGE AND RELATED COGNITIVE PHENOMENA [10]

1. Understanding spoken language: Speech perception, constituent structure, transformational grammar and factors affecting comprehension
2. Reading: Perceptual process; theories of word recognition, reading and comprehension
3. Speaking: Selecting the content of speech, speech errors, gestures, social context of speech
4. Writing: Comparing speaking and writing, cognitive tasks involved in writing
5. Application: Development in reading ability, Multilingualism.

Psy.4. PROBLEM SOLVING, CREATIVITY AND DECISION MAKING [10]

1. Problem: Definition, problem solving cycle, types, obstacles and aids
2. Problem solving approaches – Algorithm; heuristics: means-end analysis computer simulation, and analogy
3. Definition of creativity, measurement creativity
4. Reasoning and decision-making: Types of reasoning – Syllogistic and Conditional; factors influencing decision-making.
5. Application: Artificial intelligence

BOOKS FOR READING-

1. Matlin, M. (1994). *Cognition*. Bangalore: Harcourt Brace Pub.
2. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
3. Sternberg, R.J. (2007). *Cognitive Psychology*. Australia: Thomson Wadsworth.
4. Kellogg, R.T.(2007). *Fundamentals of Cognitive Psychology*. N.D. Sage Publications.
5. Solso, R. L. (2004). *Cognitive Psychology (6th ed)*. Delhi: Pearson Education.
6. Wade, C. and Tavris, C. (2007). *Psychology*. ND: Pearson Education.
7. Jahnke, J. C. & Nowaczyk, R. H. (1998). *Cognition*. Upper Saddle NJ: Prentice Hall.
8. Burne, L.E., Dominowski, R.L. & Loftus, E.E. (1979). *Cognitive processes*. NJ: Prentice-Hall.
9. Gavin, H. (1998). *The essence of cognitive psychology*. London: Prentice-Hall.
10. Corens, S., Ward, L.M., & Enns, J. (1994). *Sensation and perception*. NY: Harcourt Brace & Co.
11. Messer, D. & Miller, S. (1999). *Exploring developmental psychology*. London: Arnold.
12. Flavell, J.H. (1985). *Cognitive development (2nd ed)* NJ: Prentice Hall.
13. Reed, S.K. (1988). *Cognition: Theory and applications (3rd ed)*. California: Brooks/Cole Pub. Co.
14. Best, J. B. (1999). *Cognitive Psychology*. USA: Wadsworth Publishing Co.
15. Guenther R. K. (1998). *Human Cognition*. New Jersey: Prentice-Hall.
16. Kaplan, S. & Kaplan, R. (1982). *Cognition and environment*. N.Y.: Praeger Publishers.
17. Reed S. K. (1998). *Cognition: Theory and application (3rd ed)*. California: Brooks/Cole Pub. Company
18. Cohen G. (1983). *Psychology of cognition (2nd ed)*. London: Academic Press
19. Desai, B. and Abhyankar, S. C. (2007). *Prayogik Manasashastra ani Sanshodhan Paddhati*. Pune: Narendra Prakashan.
20. Borude, R.R. (2005). *Bodhanik manasashastra*. Chhaya Prakashan.

SEMESTER I

EP 102: PSYCHOLOGICAL TESTING: THEORY

OBJECTIVES:

1. To acquaint them with the characteristics of standardized tests.
 2. To familiarize the students with psychometric theory and principles of test construction.
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Psy.1. NATURE AND SCOPE OF PSYCHOLOGICAL TESTING [10]

1. Definition and characteristics of psychological tests
2. Classification and uses of psychological tests
3. General steps in test construction
4. Item analysis
5. [A] Issues in test administration: Ethics, bias, cultural fairness
[B] Factors influencing test performance- Examiner, situational variables and test-takers perspective

Psy.2. NORMS AND THE MEANING OF TEST SCORES [10]

1. Basic statistical concepts in psychological testing
2. Developmental norms
3. Within-group norms- Percentiles, standard scores, the Deviation IQ
4. Relativity of norms
5. Computers and the interpretation of test scores

Psy.3. RELIABILITY [10]

1. Correlation coefficient: Meaning, statistical significance, reliability coefficient
2. Definition and types of reliability
3. Reliability of speeded tests
4. Dependence of reliability on the sample tested
5. Using reliability information

Psy.4. VALIDITY [10]

1. Validity: Definition and evolving concepts
2. Content-description validation procedures
3. Criterion-prediction procedures
4. Construct-identification procedures
5. Test validity and decision theory

BOOKS FOR READING-

1. Anastasi, A. & Urbina, S. (1997). *Psychological testing*. N.D.: Pearson Education.
 2. Kaplan, R.M. & Saccuzzo, D.P. (2007). *Psychological Testing: Principles, Applications, and Issues*. Australia: Thomson Wadsworth.
 3. Gregory, R.J. (2005). *Psychological testing: History, principles and applications*. New Delhi: Pearson Education.
 4. Singh, A.K. (2006). *Tests, Measurements and Research Methods in Behavioural Sciences*. Patna: Bharati Bhavan.
 5. Anastasi, A. (1988). *Psychological testing*. NY: Macmillan.
 6. Nunnally, J.C. (1981). *Psychometric theory*. NY: Tata McGraw-Hill
 7. Ghiselli, E.E. and Campbell, J.P., Zedek, S. (1981). *Measurement theory for the behavioral sciences*. W.H. Freeman.
 8. Freeman, F.S. 3rd ed. (1965). *Psychological testing*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
 9. Cronbach, L. J. 5th ed. (1990). *Essentials of psychological testing*. New York: Harper Collins Publishers:
 10. Anastasi A. (1988). *Psychological Testing*. New York: McMillan
 11. Murphy, K. R., Davidshofer, R. K. (1988): *Psychological testing: Principles and applications*. New Jersey: Prentice Hall Inc.
 12. Aiken L.R. (1996) *Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes*.
 13. Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). *Measurement theory for the behavioural sciences*. W.H. Freeman.
 14. Chadha, N. K. (1996). *Theory and practice of psychometry*. N. D.: New Age International Ltd.
 15. Kline, P. (1983). *Personality measurement and theory*. Hutchinson.
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SEMESTER I
EP 103: STATISTICAL METHODS

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,
 3. To enable them to analyze the data of practical and project work.
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Psy.1. OVERVIEW OF DESCRIPTIVE STATISTICS AND PROBABILITY [10]

1. Overview of measures of Central tendency, variability, curves and graphs
2. Percentiles, percentile ranks and standard scores
3. Probability: Concept, definition, and approaches
4. Characteristics of normal distribution curve
5. Applications of normal distribution curve.

Psy.2. CORRELATION AND REGRESSION [10]

1. Concept and meaning of correlation
2. Pearson's Product-Moment Correlation
3. Point – Biserial Correlation and Phi-coefficient
4. Bi-serial and tetra choric correlation
5. Partial and Multiple Correlation
6. Simple Linear Regression: Concept and uses

Psy.3. INFERENCE STATISTICS [10]

1. Inferences: Standard error of mean and other statistics
2. Significance of difference for means, variances and correlation coefficients.
3. Assumptions of Analysis of Variance, and One-way ANOVA- Independent, concept of repeated measures
4. Two-way ANOVA - Independent, concept of repeated measures
5. Analysis of Covariance: Concept.

Psy.4. NON-PARAMETRIC STATISTICS [10]

1. Difference between Parametric and Non-parametric statistics
2. Chi Square tests
3. Non-parametric tests for correlated data- Rank Difference Correlation, Sign Test, Wilcoxon Signed Rank test
4. Non-parametric tests for uncorrelated data - Mann-Whitney U-test and Kruskal-Wallis Test
5. Statistical software: An introduction – SPSS, Excel

NOTE-

- 1) Students can use non-scientific calculator during examination.
- 2) Calculation exercises in the question paper shall be restricted to the following:
 - a. Percentile, Percentile Ranks and Standard Scores
 - b. Application of Normal Probability Curve
 - c. Product Moment Correlation exercises shall be set on only grouped data with formula
 - d. Scatter-Diagram
 - e. t-test exercises shall be set on only independent sample
 - f. One-way and Two-way ANOVA
 - g. Chi-square Tests, exercises shall be set on only 2x2, Equal probability

BOOKS FOR READING-

1. Minium E.W., King B. M., Bear G. (1995). *Statistical Reasoning in Psychology and Education*
2. Guilford J. P. and Fruchter B. (1985). *Fundamental Statistics in Psychology and Education* (6th ed) McGraw - Hill
3. Howell D.C. (1997). *Statistical Methods for Psychology* (4th Ed)
4. Sarma K.V.S. (2001) *Statistic Made Simple : Do it Yourself on PC*
5. Welkowitz, J., Emen, R. B. and Cohen, J. (1982). *Introductory statistics for the behavioural sciences* (3rd ed.). N.Y.: Academic Press.
6. Fergusson, G. A. (1976). *Statistical analysis in psychology and education*. McGraw-Hill.
7. Glass, G. V. & Stanley, J. C. (1970). *Statistical methods in education and psychology*. Prentice-Hall.
8. Kurtz, A.K. & Mayo, S.T. (1979). *Statistical methods in education and psychology*. Narosa.
9. Lomax, R. G. (1998). *Statistical concepts: A second course for education and behavioural sciences*. N.J.: Lawrence Erlbaum Asso. Inc.
10. Mangal, S. K. (2006). *Statistics in psychology and education*. N.D.: Prentice-Hall
11. Levin, J. & Fox, J. A. (2006). *Elementary statistics in social research*. Delhi: Pearson Education.
12. Black, T.R. (1999). *Doing quantitative research in the social sciences: An integrated approach to research design, measurement and statistics*. London: Sage Pub.
13. Foster, J.J. (2001). *Data analysis: Using SPSS for windows*. London: Sage Pub.

SEMESTER I

EP 104: PSYCHOLOGY PRACTICAL - TESTS

OBJECTIVES:

To acquaint the students with:

1. The administration of psychological tests, interpretation of scores and report writing,
2. The evaluation procedures and evaluation of psychological tests,
3. Certain skills of psychological counselling on the basis of psychological test results.

** Note: Only standardized tests should be used.*

Psy.1. GENERAL ABILITY TESTS (any two):

1. Intelligence tests: Verbal Test
2. Intelligence tests: Performance Test
3. Creativity
4. Thinking
5. Judgment and Reasoning

Psy.2. SPECIAL ABILITY TESTS (any two):

1. Multiple Aptitude Test (any one)
2. Special Aptitude Test (any one)

Psy.3. PERSONALITY TESTS (any three):

1. Self-report inventory
2. Projective test: Verbal
3. Projective test: Pictorial
4. Interest inventory
5. Adjustment inventory
6. Attitude / Values

Psy.4. OTHER TESTS (any three):

1. Stress / Frustration
2. Environmental Assessment
3. Development Assessment
4. Achievement Test
5. Cognitive Style
6. Self Concept
7. Neuropsychological Assessment
8. Social Skill / Behavioural Skill

Important notes:

A. General Instructions:

1. Each batch of practical will consist of maximum 8 students.
2. A separate batch will be formed if this number exceeds even by one.
3. Workload for each batch will be equivalent to 8 lecture periods.
4. Students will be required to maintain a journal for this course and obtain the completion certificate from the teacher in-charge and certified by H.O.D. Without this certificate, the students will not be allowed to appear for the Internal Examination and End Semester Examination (ESE) as per the rules of credit system.

Conduct of practical Examination of Credit System.

[B] Evaluation of Practical-(Total 4 Credits)

1. *There will be 50 marks for continuous (internal) assessment (2 credits) and 50 marks for End of Semester Examination (ESE, 2 Credits).*

a) Continuous (Internal) Assessment of practical -50 marks (2 Credits)

There will be internal practical examination after completion of five practical's and the division of 50 internal marks like following:

| Items | Marks |
|--|-----------|
| Instruction & Conduction | 10 |
| Oral | 10 |
| Report writing of the given practical | 15 |
| Report of Five Practical's and Punctuality | 15 |
| Total | 50 |

Internal examination will be conducted at departmental level and subject teacher and one expert appointed by H.O.D. will conduct the examination:-

1. Each batch of practical examination will consist of maximum 8 students.
2. Subject teacher and expert appointed by H.O.D. will jointly set question paper.
3. Each question paper will have two subsets i.e. A and B.
4. Duration of the internal examination of practical will be 4 hours per batch.
5. Marks are given by both examiners; average of the same will be calculated and considered as final marks of the students under the given heading.
6. Final mark list will be submitted to the H.O.D.

b) End of Semester Examination (ESE)-50 marks (2 Credits).

The End Semester Examination will be of 50 marks and division of marks like following.

| Items | Marks |
|---------------------------------------|--------------|
| Instruction & Conduction | 10 |
| Oral | 10 |
| Report writing of the given practical | 15 |
| Report of Ten Practical's (Journal) | 15 |
| Total | 50 |

The program of the End Semester Examination will be prepared by coordinator appointed by University.

1. Two examiners will be appointed by 32 (5) (a) committee, one of whom will be preferably internal examiner.
2. If no teacher from the department is eligible as internal examiner, then both examiners will be out of the given department; one will work as internal examiner and one as external examiner.
3. Duration of the End Semester Examination of will be 4 hours per batch.
4. Each batch of practical examination will consist of maximum 8 students.
5. Internal and external examiners will jointly set question papers.
6. Each question paper will have three subsets i.e. A, B, C.
6. The question paper will contain problems based on the practical conducted at the respective centers.
7. In the case where marks are given by internal as well as external examiners, average of the same will be calculated and considered as final marks of the students under the given heading.

[C] Remuneration to examiners for End Semester Examination

1. Each question paper will have three subsets i.e. A, B, C (the three subsets together will be treated as one question paper for billing purpose).
2. Remuneration will be equally divided between the two examiners.

BOOKS FOR READING.

1. Anastasi, A. & Urbina, S. (1997). *Psychological testing*. N.D.: Pearson Education.
2. Kaplan, R.M. & Saccuzzo, D.P. (2007). *Psychological Testing: Principles, Applications, and Issues*. Australia: Thomson Wadsworth.
3. Gregory, R.J. (2005). *Psychological testing: History, principles and applications*. New Delhi: Pearson Education.

4. Singh, A.K. (2006). *Tests, Measurements and Research Methods in Behavioural Sciences*. Patna: Bharati Bhavan.
 5. Freeman, F.S. 3rd ed. (1965). *Psychological testing*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
 6. Cronbach L. J. (1984). *Essentials of Psychological Testing* (4th Ed)
 7. Anastasi A. (1988). *Psychological Testing*. New York: McMillan
 8. Murphy, K. R., Davidshofer, R. K. (1988): *Psychological testing: Principles and applications*. New Jersey: Prentice Hall Inc.
 9. Nunnally, J.C. and Bernstein, I.H. (1994). *Psychometric theory* (3rd ed). NY: McGraw-Hill.
 10. Aiken L.R. (1996) *Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes*.
 11. Buros, O. (ed). (1965, 1972). *The mental measurement*. Year Book, NJ: Gryphon Press.
 12. Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). *Measurement theory for the behavioural sciences*. W.H. Freeman.
 13. Chadha, N. K. (1996). *Theory and practice of psychometry*. N. D.: New Age International Ltd.
 14. Stanley, J.C. and Hopkins, K.D. (1978). *Educational and psychological measurement and evaluation*. ND: Prentice-Hall of India.
 15. Guilford, J.P. (1975). *Psychometric methods*. ND: Tata McGraw-Hill.
 16. Test manuals of respective tests.
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SEMESTER II

EP 201: LEARNING AND MEMORY

OBJECTIVES:

To acquaint the students with:

1. Various types, models and theories of learning and memory,
 2. Neurological basis of learning and memory,
 3. Applications of the principles of learning and memory
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Psy.1. LEARNING: THEORIES AND APPLICATIONS [10]

1. Classical Conditioning: Concepts, types and applications
2. Operant Conditioning: Reinforcement, types, schedules of reinforcement, shaping and applications
3. Cognitive approaches to learning: Latent learning, observational learning, and applications
4. Cultural influences on learning
5. Application: Prevention of AIDS and HIV, and awareness of media and violence.

Psy.2. TYPES OF MEMORY [10]

1. Sensory memory- Iconic and echoic
2. Short Term Memory
3. Long Term Memory: Types
4. Determinants of memory
5. Applications: Memory improvement techniques

Psy.3. MODELS AND THEORIES OF MEMORY [10]

1. Unitary and dual process view: Waugh and Norman
2. Multi-process view: Atkinson and Shiffrin; Craik and Lockhart
3. Connectionist model: Rumelhart and McClelland
4. Theories of forgetting: Psychoanalytical, Trace, Trace Decay, Interference, and recent trends.
5. Application: Distortion of memory

Psy.4. NEUROLOGICAL BASIS OF LEARNING AND MEMORY [10]

1. Brain areas associated with learning and memory
2. Types of Amnesia- Amnesia after concussion (Anterograde, Retrograde), Korsakoff, Alzheimer's disease
3. Studies on role of brain in learning and conditioning
4. Synaptic mechanisms and synaptic plasticity of learning and memory
5. Application: Neuro-linguistic programming.

BOOKS FOR READING-

1. Matlin, M. (1994). *Cognition*. Bangalore: Harcourt Brace Pub.
2. Sternberg, R. J. (2007). *Cognitive Psychology*. Australia: Thomson Wadsworth.
3. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
4. Kellogg, R. T. (2007). *Fundamentals of Cognitive Psychology*. N.D. Sage Publications.
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6. Carlson, N. R. (2007). *Foundations of physiological psychology*. N.D.: Pearson Edu.
7. Pinel, J.P.J. (2007). *Biopsychology*. N.D.: Pearson Edu.
8. Horn, G. (1985). *Memory imprinting and the brain*. Oxford: Clarendon Press.
9. Kothurkar, V. K. (1985). *About learning and memory*. ND: Wiley Eastern.
10. Wade, C. and Tavris, C. (2007). *Psychology*. Pearson Education.
11. Best, J. B. (1999). *Cognitive Psychology*. USA: Wadsworth Publishing Co.
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13. Flavell, J.H. (1985). *Cognitive development*. 2nd ed. N.J.: Prentice-Hall.
14. Guenther R. K. (1998). *Human Cognition*. New Jersey: Prentice-Hall.
15. Reed S. K. (1998). *Cognition: Theory and application (3rd ed)*. California: Brooks/Cole Pub. Company
16. Cohen G. (1983). *Psychology of cognition (2nd ed.)*. London: Academic Press.
17. Rosenzweig, M.R., Leiman, A.L. & Breedlove, S.M. (1996). *Biological psychology*. Massachusetts: Sinauer Associates Publishers.
18. Emilien, G., Durlach, C., Antoniadis, E., Linden, M. Vd. & Maloteaux, J.M. (2004). *Memory*. NY: Psychology Press.
19. Jahnke, J.C. & Nowaczyk, R.H. (1998). *Cognition*. Upper Saddle NJ: Prentice Hall.
20. Malim, T. (1994). *Cognitive processes*. London: MacMillan.
21. Horton, D. L. and Turnage, T. W. (1976). *Human learning*. ND: Prentice-Hall
22. Desai, B. and Abhyankar, S. C. (2007). *Prayogik manasashastra and sanshodhan paddhati*. Pune: Narendra Prakashan.
23. Borude, R.R. *Bodhanik manasashastra*. Chhaya Prakashan.

SEMESTER II

EP 202: PSYCHOLOGICAL TESTING: APPLICATIONS

OBJECTIVES:

To acquaint the students with:

1. Various psychological assessment techniques
 2. Application of psychological tests in different fields.
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Notes: -

- *While teaching these tests in the context of the specified area, teachers are supposed to acquaint the students with their applications in other areas, too.*
- *Teachers are supposed to familiarize the students with Indian adaptation of tests.*

Psy.1. TESTING IN EDUCATIONAL SETTING [10]

1. General mental ability tests: Group tests – SPM, Cattell's Culture-fair Test of Intelligence
2. General mental ability tests: Individual tests- Binet - Kamath test, WISC, WAIS, Malin's Intelligence Scale for Indian Children (MISIC)
3. Differential Aptitude Test (DAT)
4. Personality and interest inventories- CPQ, CAT, HSPQ, SVIB
5. School and college entrance tests- SAT, GRE

Psy.2. TESTING IN CLINICAL SETTING [10]

1. Testing based on the logical-content strategy- Woodworth Personal Data Sheet, Mooney Problem Checklist
2. Tests based on the Criterion-Group Strategy- MMPI, California Psychological Inventory
3. Tests based on the Factor-Analytic Strategy- 16 PF, NEO-PI R, EPQ-R
4. Tests based on the Theoretical Strategy- EPPS, self concept inventories, Jackson Personality Inventory
5. Projective and neuropsychological testing

Psy.3. TESTING IN INDUSTRIAL AND BUSINESS SETTING [10]

1. The selection of employees- Concepts of base rates and hit rates; Taylor Russell tables; Utility theory and decision analysis; incremental validity.
2. Personality tests used for personnel selection- MBTI
3. Dexterity tests - O'Conner Finger Dexterity Test, Bennett Hand-Tool Dexterity Test, Minnesota Manual Dexterity Test, Mechanical Reasoning Test
4. Situational testing (games, role play) and in-basket exercises
5. Measuring interpersonal relationship – FIRO-B and leadership assessment.

Psy.4. TESTING IN COUNSELING SETTING [10]

1. General ability testing: Individual tests, and group tests (SPM, NVTI, Passi Creativity Tests)
2. Multiple aptitude tests - DAT, GATB
3. Strong Vocational Interest Blank (SVIB)
4. Anxiety and adjustment test- STAI, STAXI, Bell's Adjustment Inventory, Moos' Family Environment Scale (FES)
5. Sack's Sentence Completion Test

BOOKS FOR READING-

1. Kaplan, R.M. & Saccuzzo, D.P. (2007). *Psychological Testing: Principles, Applications, and Issues*. Australia: Thomson Wadsworth.
2. Anastasi, A. & Urbina, S. (1997). *Psychological testing*. N.D.: Pearson Education.
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5. Cronbach, L. J. 5th ed. (1990). *Essentials of psychological testing*. New York: Harper Collins Publishers:
6. Anastasi A. (1988). *Psychological Testing*. New York: McMillan
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10. Aiken L.R. (1996) *Rating Scales and Checklists: Evaluating Behavior, Personality and Attitudes*
11. Ghiselli, E. E., Campbell, J. P. & Zedek, S. (1981). *Measurement theory for the behavioural sciences*. W.H. Freeman.
12. Chadha, N. K. (1996). *Theory and practice of psychometry*. N. D.: New Age International Ltd.

SEMESTER II

EP 203: RESEARCH METHODOLOGY

OBJECTIVES:

To acquaint the students with:

1. The basic research concepts,
 2. Steps in research process,
 3. The basic terminology of advanced research techniques so that they can follow the research reports and papers in different branches of psychology,
 4. Some commonly used research designs and the APA style of preparing research proposal and writing research report.
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Psy.1. OVERVIEW OF RESEARCH PROCESS AND SURVEY RESEARCH [10]

1. Overview of basic research concepts (problem, hypothesis, variables and operational definitions), APA style of preparing research proposal' writing research report
2. Sampling techniques
3. Methods of data collection: Observation, mail surveys (questionnaires), personal interviews, telephone interviews, and internet surveys
4. Survey research designs- Cross-sectional, successive independent samples, longitudinal
5. Problems, issues, and applications of survey research

Psy.2. EXPERIMENTAL DESIGNS [10]

1. Experimental designs: Definition, principles and functions
2. Between-group designs: Randomised group designs
3. Between-group designs: Block designs- a) two group designs, b) randomized block designs with more than two groups
4. Factorial designs: Simple factorial designs, factorial designs with covariate, randomized block factorial designs
5. Conceptual distinction among between group designs, repeated measures designs, and mixed designs.

Psy.3. OTHER MULTIVARIATE DESIGNS AND QUALITATIVE RESEARCH [10]

1. Factor analysis: Basic terms, overview of extraction methods Overview of rotation methods, higher order factor analysis
2. Exploratory and Confirmatory factor analysis
3. Other multivariate techniques: Multiple regression, multivariate analysis of variance, discriminant functions analysis, canonical correlations, and path analysis and structural equation.
4. Qualitative research design
5. Analysis of Qualitative data

Psy.4. QUASI-EXPERIMENTAL DESIGNS AND SCALING [10]

1. Characteristics and types of quasi-experimental designs: Single-group designs, pre test-post test designs
2. Non-equivalent control group designs, discontinuity promotion designs, time series designs, cohort designs
3. Application of quasi-experimental designs in program evaluation research.
4. Scaling: Purpose, psychophysical scaling

5. Scaling: Psychological scaling: Thurstone-type scales (i.e. differential), and Likert-type scales (i.e. Summated)

BOOKS FOR READING-

1. Shaughnessy J.J. and Zechmeister E.B. (1997). *Research Methods in Psychology* (4th ed)
2. Kerlinger F.N. (1994). *Foundations of behavioral research* (3rd ed)
3. Zechmeister J.S., Zechmeister E.B. & Shaughnessy J.J. (2001). *Essentials of research methods in psychology*.
4. Robinson, P.W. (1976). *Fundamentals of experimental psychology*. Prentice-Hall.
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6. Edwards, A.L. (1985). *Experimental designs in psychological research*. Harper & Row.
7. Broota, K.D. (1989). *Experimental design in behavioural research*. Wiley Eastern.
8. Singh A.K. (2006). 5th ed. *Tests, Measurement and Research Methods in Behavioural Sciences*. Patna: Bharati Bhavan.
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SEMESTER II

EP 204: PSYCHOLOGY PRACTICAL: EXPERIMENTS

OBJECTIVES:

To acquaint the students with:

1. The different areas of experimentation in psychology,
 2. Various skills of conducting experiments in psychology,
 3. Applications of experimental design,
 4. Report writing style.
-

Psy.1. COGNITIVE PROCESSES (ANY 3):

1. Signal Detection - ROC
2. Perceptual Defence
3. Concept Formation
4. Problem Solving
5. Study of Mental Imagery
6. Peterson's Test of Rational Learning
7. Stroop Effect in Visual Perception
8. Effect of feedback on Illusion
9. Time perception

Psy.2. LEARNING (ANY 3):

1. Learning by Insight (Bolt Head Maze)
2. Interference : Retroactive / Proactive
3. Paired Associate Learning
4. Serial Learning
5. Verbal Conditioning
6. Transfer of training in maze learning (Finger Maze with two Subjects)

Psy.3. MEMORY (ANY 2):

1. Short Term Memory
2. Effect of Mnemonic Strategy on Memory
3. Immediate Memory Span: Meaningful Vs. Meaningless Material
4. Organization in Memory
6. Memory for Unattended Material
7. Memory for Associated and Un-associated Pairs of Words-

Psy.4. MOTIVATION AND EMOTION (ANY 2):

1. Zeigarnik Effect
2. Effect of Anxiety on Performance
3. Knowledge of Result
4. Goal Setting
5. Level of Aspiration- Steadiness Tester or Tower Building Blocks

Important notes:

General Instructions:

1. Each batch of practical will consist of maximum 8 students.
2. A separate batch will be formed if this number exceeds even by one.
3. Workload for each batch will be equivalent to 8 lecture periods.
4. Students will be required to maintain a journal for this course and obtain the completion certificate from the teacher in-charge and certified by H.O.D. Without this certificate, the students will not be allowed to appear for the Internal Examination and End Semester Examination (ESE) as per the rules of credit system.

Conduct of practical Examination of Credit System.

[B] Evaluation of Practical-(Total 4 Credits)

1. *There will be 50 marks for continuous (internal) assessment (2 credits) and 50 marks for End of Semester Examination (ESE, 2 Credits).*

a) Continuous (Internal) Assessment of practical -50 marks (2 Credits)

There will be internal practical examination after completion of five practical's and the division of 50 internal marks like following:

| Items | Marks |
|--|--------------|
| Instruction & Conduction | 10 |
| Oral | 10 |
| Report writing of the given practical | 15 |
| Report of Five Practical's and Punctuality | 15 |
| Total | 50 |

Internal examination will be conducted at departmental level and subject teacher and one expert appointed by H.O.D. will conduct the examination:-

7. Each batch of practical examination will consist of maximum 8 students.
8. Subject teacher and expert appointed by H.O.D. will jointly set question paper.
9. Each question paper will have two subsets i.e. A and B.
10. Duration of the internal examination of practical will be 4 hours per batch.
11. Marks are given by both examiners; average of the same will be calculated and considered as final marks of the students under the given heading.
12. Final mark list will be submitted to the H.O.D.

b) End of Semester Examination (ESE)-50 marks (2 Credits).

The End Semester Examination will be of 50 marks and division of marks like following.

| Items | Marks |
|---------------------------------------|--------------|
| Instruction & Conduction | 10 |
| Oral | 10 |
| Report writing of the given practical | 15 |
| Report of Ten Practical's (Journal) | 15 |
| Total | 50 |

The program of the End Semester Examination will be prepared by coordinator appointed by University.

1. Two examiners will be appointed by 32 (5) (a) committee, one of whom will be preferably internal examiner.
2. If no teacher from the department is eligible as internal examiner, then both examiners will be out of the given department; one will work as internal examiner and one as external examiner.
3. Duration of the End Semester Examination will be 4 hours per batch.
4. Each batch of practical examination will consist of maximum 8 students.
5. Internal and external examiners will jointly set question papers.
6. Each question paper will have three subsets i.e. A, B, C.
6. The question paper will contain problems based on the practical conducted at the respective centers.
7. In the case where marks are given by internal as well as external examiners, average of the same will be calculated and considered as final marks of the students under the given heading.

[C] Remuneration to examiners for End Semester Examination

1. Each question paper will have three subsets i.e. A, B, C (the three subsets together will be treated as one question paper for billing purpose).
2. Remuneration will be equally divided between the two examiners.

Books for Reading:

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