

UNIVERSITY OF PUNE

Syllabus of T.Y.B.A. Psychology To be implemented from 2010-2011

PAPER NO.	PAPER TITLE
G3	Industrial and Organizational Psychology
S3	Experimental psychology and Scientific Research
S4	Psychology Practical: Experiments and Tests

UNIVERSITY OF PUNE
Syllabus of T.Y.B.A. Psychology

G3: INDUSTRIAL AND ORGANIZATIONAL (I/O) PSYCHOLOGY

OBJECTIVES-

To acquaint the students with:

1. Historical background and future prospects of I/O Psychology
2. Role of job analysis in preparation for personnel selection
3. The process and methods of personnel selection
4. Significance and methods of training and development
5. Sources, uses and methods of performance evaluation
6. Different approaches to motivation
7. Basic leader skills and models of leadership

TERM I

TOPIC 1: NATURE AND SCOPE OF INDUSTRIAL AND ORGANIZATIONAL (I/O) PSYCHOLOGY **[14 periods]**

1. I/O Psychology: Meaning , subject matter and functions of Industrial Psychology
2. Development of I/O Psychology
3. I/O Psychology NOW
4. Future of I/O Psychology

TOPIC 2: PERSONNEL SELECTION **[14 periods]**

1. Determining job requirements: Uses and types of job information, and job analysis
2. Recruiting job applicants: Recruitment techniques
3. Personal history assessment: Standard application blanks, bio data items, resume and letter of reference
4. Assessment of current behavior: Interviews, psychological testing and assessment centers

TOPIC 3: EMPLOYEE TRAINING AND DEVELOPMENT **[14 periods]**

1. Training needs assessment
2. Training design
3. Techniques for training knowledge and skill
4. Training programme evaluation

TOPIC 4: EVALUATING JOB PERFORMANCE **[14 periods]**

1. Uses of performance evaluation: Downsizing, fair employment, employment-at-will and seniority
2. Sources of evaluation: The evaluator and performance information
3. Appraisal rating systems: Graphic rating scales and rating errors
4. Non-rating evaluation methods: Checklists and comparison methods

TERM II

TOPIC 5: MOTIVATION

[14 periods]

1. What is work motivation?
2. Need theories: McClelland, Herzberg
3. Cognitive theories: Goal Setting Theory, Self Efficacy Theory
4. Using motivation theory at work

TOPIC 6: JOB SATISFACTION

[14 periods]

1. Job satisfaction as a job attitude
2. Components of job satisfaction: Satisfaction with work, with pay and with supervision
3. Measuring job satisfaction: Job Descriptive Index, Minnesota Satisfaction Questionnaire, Need Satisfaction Questionnaire, Faces Scale
4. Relationship of job satisfaction to productivity and withdrawal behavior.

TOPIC 7: LEADERSHIP

[14 periods]

1. Leadership: Meaning, nature and styles
2. Approaches to leadership: Human Relations, Theory X & Theory Y
3. Fiedler's Contingency Model
4. Specific leader skills
 - a. Leadership through power
 - b. Leadership through vision: Transactional and Transformational
 - c. Leadership through persuasion

TOPIC 8: ENGINEERING PSYCHOLOGY

[14 periods]

1. History and scope of engineering psychology
2. Time and Motion Study
3. Person-Machine System
4. Work space design

BOOKS FOR READING:

1. Berry, L.M. (1998), reprint 2010. *Psychology at work: An introduction to Industrial and Organizational Psychology*. N.Y.: McGraw-Hill International Editions.
2. Aamodt, M.G. (2007). *Industrial and organizational psychology: An applied approach*. US: Thomson & Wadsworth.
3. Schultz, D. and Schultz, S. E. (2006). *Psychology and work today*. 8th ed. N.D.: Pearson Edu.
4. Robbins, S.P.; Judge, T.A.; and Sanghi, A. (2009). *Organizational behaviour*. N.D.: Pearson Prentice Hall.
5. McShane, et al. (2006). 1st reprint. *Organizational behaviour*. N.D.: Tata McGraw-Hill
6. Miner, J.B. (1992). *Industrial-Organizational Psychology*. N.Y.: McGraw-Hill
7. Pandit, R., Kulkarni, A.V. & Gore, C. (1999). *Manasashastra: Audyogik aani vyavasayik upayojan*. Nagpur: Pimpalpure & Co.
8. Luthans, F. (1995). *Organizational behavior* (7th ed). New York: McGraw- Hill, inc.
9. Robbins, S.P. & Sanghi, S. (2007). *Organizational behavior* (11th ed.). New Delhi: Pearson Education.

S3: EXPERIMENTAL PSYCHOLOGY AND SCIENTIFIC RESEARCH

OBJECTIVES-

1. To acquaint the students with the basic concepts of experimental psychology and research methodology,
2. To develop the spirit of scientific inquiry in the students,
3. To help them generate ideas for research, as well as develop hypotheses and operational definitions for variables.
4. To help students understand the basic steps in scientific research,
5. To equip the students with the basic information and knowledge about test-administration and scoring, and interpretation of the obtained results,
6. To enable the students to undertake an independent small-scale research project.

TERM I

TOPIC 1: PSYCHOPHYSICS

[14 Periods]

1. Basic concepts in Psychophysics: Sensitivity, Threshold, Point of Subjective Equality, Constant and Variable Errors
2. Method of Limits: Computation of RL and DL
3. Method of Constant Stimuli: Computation of RL and DL
4. Method of Average Error: Computation of PSE & CE
5. Modern Psychophysics: Signal Detection Theory

TOPIC 2: ATTENTION AND PERCEPTUAL PROCESSES

[14 Periods]

1. Nature, definition and determinants of attention
2. Kinds of attention: Voluntary, involuntary, habitual, selective, divided and sustained
3. Theories of attention: Automatic Vs Controlled Processing, Feature Integration
4. Perception: Nature, characteristics and processes involved
5. Visual space perception: Monocular and Binocular cues

TOPIC 3: THINKING

[14 Periods]

1. Thinking: Nature, definition and kinds
2. Tools of thinking: Images, cognitive map and language
3. Trial and error and insight in thinking
4. Theories of thinking: Central Theory and Peripheral-Central Theory
5. Creative thinking: Nature and stages

TOPIC 4: INTRODUCTION TO PSYCHOLOGICAL TESTING

[14 Periods]

1. Definition, types, characteristics and uses of psychological tests
2. Reliability: Definition and types
3. Validity: Definition and types
4. Norms: Definition and types
5. Social and ethical issues in psychological testing

TERM II

TOPIC 5: SCIENTIFIC RESEARCH

[14 Periods]

1. Developing ideas for research: Cultural context, personal experience, literature, internet
2. Characteristics of the scientific method
3. Goals of research
4. Types of scientific research: Pure vs. applied., descriptive vs. analytical, quantitative vs. qualitative, conceptual vs. empirical
5. Research approaches: Experimental, inferential, and simulation

TOPIC 6: VARIABLES, CONSTRUCTS, RESEARCH PROBLEM AND HYPOTHESIS

[14 Periods]

1. Variables: Meaning, types.
2. Construct vs. concept
3. Operational and constitutive definition of variables
4. Research Problem: Sources, types, and criteria of a good problem.
5. Hypothesis: Meaning, types, and criteria.

TOPIC 7: SAMPLING TECHNIQUES

[14 Periods]

1. Basic concepts: Universe, sample and sampling
2. Sampling methods: Requisites and advantages
3. Types of probability sampling
4. Types of non-probability sampling
5. Sampling: Distribution and error

TOPIC 8: METHODS AND TECHNIQUES OF DATA COLLECTION

[14 Periods]

1. Observation: Natural, Systematic, Controlled, Participative vs. Non-participative
2. Laboratory experiments, field experiments and field studies
3. Questionnaire and interview
4. Survey
5. Case study

BOOKS FOR READING-

1. Zachmeister, J.E., Zachmeister, E.B., and Shaughnessy, J.J. (2009). *Essentials of research methods in psychology*. N.D.: Tata McGraw-Hill.
2. Mishra, B.K. (2008). *Psychology: The study of human behavior*. N.D.: PHI Learning.
3. Singh, A.K. (2006). *Tests, Measurements and research methods in behavioural sciences*. Patna: Bharati Bhavan.
4. Postman, L. & Egan, J.P. (1949), reprint 2009. *Experimental psychology: An introduction*. ND: Kalyani Publication.
5. D'Amato, M.R. (2009). *Experimental psychology: Methodology, psychophysics and learning*. N.D.: Tata McGraw-Hill.

6. Woodworth, R.S. & Schlosberg, H. (reprint 2008, 6th ed.), *Experimental Psychology*. ND: Oxford & IBH Publishing Co. Pvt. Ltd.
7. Kerlinger, F.N. (1995). *Foundations of behavioral research*. New York: Rinehart Winston. Inc. Surjeet Publications.
8. McBurney, D.H. and White, T.L. (2007). *Research methods*. US: Cengage
9. Kothari, C.R. (reprint 2009). *Research methodology: Methods and techniques*. New Delhi: Wiley Eastn Ltd.
10. Desai, B. and Abhyankar, S.C. (2001). *Prayogik Manasashastra ani Samshodhan Paddhati*. Pune: Narendra Prakashan.
11. Solso, R.L., MacLin, M.K. (2008). *Experimental psychology: A case approach*. N.D.: Dorling Kindersley Pvt. Ltd.
12. Chadha, N.K. (2009). *Applied psychometry*. N.D.: Sage Publications.
13. Anastasi, A. & Urbina, S. (2009). *Psychological testing*. N.D.: Pearson Education.
14. Myers, A. and Hansen, C. (2002). *Experimental Psychology*. U.S.: Thomson Wadsworth.
15. Chadha N.K.(2009),*Applied Psychometry*,Sage Publication Pvt Ltd.New Delhi.
16. KaplanR.M.&Saccuzzo D.P.(2005) *Psychological Testing,Principles ,Applications and Issues*.Sixth Ed. Cengage Learning India, Pvt Ltd.

S4: PSYCHOLOGY PRACTICAL: TESTS AND EXPERIMENTS

OBJECTIVES:

1. To familiarize the students with the use of elementary statistical techniques,
2. To give practical experience to the students in administering and scoring psychological tests and interpreting the scores,
3. To acquaint the students with the basic procedure and design of psychology experiments,
4. To encourage and guide the students to undertake a small-scale research project.

SECTION A: STATISTICS

Statistics is a part of Practical paper. Teachers should conduct one lecture per week throughout the year for Statistics. See the “Guidelines for S4 Paper” for other details.

Objectives:

1. To acquaint the students with the basic statistical concepts
2. To train them in solving simple statistical problems.

Topics to be covered:

1. Frequency distribution
2. Measures of central tendency: Mean, Median, Mode for grouped and ungrouped data
3. Measures of variability: Range, Standard Deviation and Quartile Deviation (Q1, Q3 and Q) for grouped and ungrouped data.
4. Rank Difference Correlation.

SECTION B: TESTS

SECTION C: GROUP TESTING OR PROJECT

SECTION D: EXPERIMENTS

TERM I: SECTION B & C

I] GENERAL ABILITY TESTING (any two)

1. Malin’s Verbal / Performance Scale
2. Standard Progressive Matrices (SPM)
3. Draw-a-Man Test
4. Binet Kamath Test
5. Test of Creativity

II] SPECIAL ABILITY TESTING (any one)

1. Differential Aptitude Tests (DAT)- Any two sub tests
2. Dexterity test
3. Scientific Aptitude Test

III] PERSONALITY (any three)

1. Eysenck Personality Questionnaire

2. Children Apperception Test
3. Sentence Completion Test
4. 16 PF
5. Introversion-Extraversion Test
6. Interest inventory

IV] ADJUSTMENT (any one)

1. Family
2. School
3. Marriage
4. Adjustment Inventory

V] TESTING OF ATTITUDE (any one)

1. Marriage
2. Religion
3. Optimism-pessimism

VI] VALUES (any one)

1. Differential values test
2. Value orientation

SECTION C: GROUP TESTING OR PROJECT

GUIDELINES FOR GROUP TESTING OR PROJECT

GROUP TESTING:

1. For group testing, a small sample (n=20 at least) should be taken.
2. Any one standardized psychological test should be administered to the sample.
3. Responses should be scored as per the instructions given in the manual.
4. Report for group testing should be structured as follows:
 - a. Purpose of the group testing
 - b. Description of the test, e.g. author, psychometric properties, uses of test, etc.
 - c. Tabular presentation of scores and results
 - d. Qualitative analysis, if applicable
 - e. Interpretation at group level
 - f. Any other relevant finding
 - g. Conclusion
 - h. References

PROJECT:

1. For project, a sample of at least 30 subjects should be taken
2. Project report should be structured as follows-
 - a. Introduction and definition of basic concepts
 - b. Rationale/significance of the study
 - c. Hypothesis
 - d. Sample
 - e. Tools for data collection
 - f. Statistical analysis

- g. Results, discussion and conclusion
- h. Limitations and suggestions
- i. References

Note:

1. *Group testing or project is mandatory*
2. *Decision to allow students to conduct group testing or project will be at the discretion of the head of the department*
3. *The report of group testing or project should be submitted separately.*

TERM II: SECTION D

I] PSYCHOPHYSICS

1. Method of Limits- RL or DL
2. Method of Constant Stimuli- RL or DL
3. Method of Average Error: PSE and CE

II] ATTENTION (any one)

1. Divided attention
2. Span of attention
3. Stroop effect

III] PERCEPTUAL PROCESSES (any two)

1. Illusion
2. Size constancy
3. Retinal color zones
4. Reaction time
5. Depth perception

IV] THINKING AND PROBLEM SOLVING (any one)

1. Effect of mental set on problem solving
2. Maze learning
3. Problems solving- Pyramid puzzle / Wiggly Blocks / Heart-and-Bow puzzle

V] LEARNING (any one)

1. Bilateral transfer
2. Effect of knowledge of results
3. Habit interference
4. Serial learning

VI] MEMORY (any one)

1. Recall and recognition
2. Retroactive inhibition / Proactive inhibition
3. Short Term Memory

GUIDELINES FOR S4 PAPER

GUIDELINES FOR THE CONDUCT OF PRACTICAL

1. Each batch of students should consist of 12 students.
2. If the number of students exceeds even by 1, a separate batch should be formed for conduct of practical.
3. Each batch will conduct practical twice per week with three lecture periods per session.
4. Total workload per batch will be 6 lecture periods.
5. In addition 1 separate lecture will be held for Statistics per week for the entire class.
6. Practical examination will be held annually.
7. Students should visit an industry, mental hospital, general hospital, central jail, remand home, ashram, or correctional institute / organization. The teacher accompanying the students can claim TA/DA as per the University rules.
8. The concerned teacher should verify the completion of practical journal as well as group testing or project report and issue a completion certificate signed by the head of the department.

GUIDELINES FOR ASSESSMENT

1. While preparing the programme for final examination, the number of students in any given batch should not exceed 8.
2. The examiners should set paper on the spot.
3. Three subsets of question papers should be set per batch. These subsets should be considered as one set for billing purpose.
4. Before conducting the examination the external examiner should confirm that all the guidelines mentioned in the syllabus were strictly followed while teaching and conducting the practical. The examiner should also see whether the number of practical conducted is as per the specifications given in the syllabus.
5. While appearing for the final examination, students must produce the fair journal containing the report of the practical duly completed and signed by the concerned teacher and head of the department. Group Testing report or Project report (whichever is applicable) should be submitted separately.
6. External Examiner should allow students to appear for final examination only on producing the Completion Certificate.
7. The structure of the question paper for S4 will be as follows:
 - Statistics (any two problems)
 - Question paper/ preference sheet for practical
 - i. The question paper will contain 2 sections – section I & section II.
 - ii. Section I will contain 4 questions based on tests.
 - iii. Section II will contain 4 questions based on experiments.
 - iv. The student will give 2 preferences for each section.
 - v. Out of the four preferences given by the student, the final choice of the question to be attempted will be of the external examiner.
 - Group Testing or Project Assessment
 - i. Group testing- The examiner should assess group testing report and conduct viva on the following points:
 - a. Purpose of the group testing
 - b. Name of the test used

- c. Statistics used
 - d. Results
 - e. Conclusion
- ii. Project- The examiner should assess project report and conduct viva on the following points:
- a. Hypothesis
 - b. Sample
 - c. Tools for data collection
 - d. Method/s for statistical analysis
 - e. Results
 - f. Conclusion
8. Break up of marks will be as follows:
- | | |
|-------------------------------|------------------|
| • Statistics | 20 marks |
| • Instructions and conducting | 10 marks |
| • Practical Report | 15 marks |
| • Journal | 20 marks |
| • Practical Viva | 20 marks |
| • Group Testing or Project | |
| i. Report | 10 marks |
| ii. Viva | 05 marks |
| TOTAL MARKS | 100 marks |
9. The duration for practical examination will be of three and a half clock hours per batch.
10. Assessment of statistics and practical report should be done by the external examiner only.
11. Instructions & conducting, journal, viva, groups testing or project report should be assessed by the internal and external examiners. Average marks of the two examiners should be taken as final assessment.
12. Difference of more than 25% marks between the internal and external examiners in assessment on any of the items mentioned above should be settled mutually.
13. The following items should be considered for billing purpose, as per the revised rates of examiners' remuneration of Pune University.
- Paper setting
 - Remuneration per student per examiner
 - Translation
 - Subsequent paper setting (i.e. Statistics)
 - Model answer of Statistics
14. Total remuneration for the examination should be equally divided between the two examiners.

Books for Reading:

1. Rajamanickam, M. (2005). *Experimental Psychology: with Advanced Experiments*, Volume 1 & 2. New Delhi: Concept Publishing Company.
2. Mohsin, S. M. (1975). *Experiments in psychology*. Orient Longman.
3. Mohanthy. *Experiments in psychology*.
4. Parameshwaran, E. G. & Rao, B. T. (1968). *Manual of experimental psychology*. Bombay: Lalvani Publishing House.

5. Tinker, M.A. & Russell, W.A. *Introduction to methods in experimental psychology*. Appleton – Century Crofts.
6. Jalota, S. (1962). *Experiments in psychology*. Asia Publishing House.
7. Galloti, K. M. (2004). *Cognitive psychology in and out of the laboratory*. USA: Thomson Wadsworth.
8. Postman, L. & Egan, J.P. (1949), reprint 2009. *Experimental psychology: An introduction*. ND: Kalyani Publication.
9. D'Amato, M.R. (2009). *Experimental psychology: Methodology, psychophysics and learning*. N.D.: Tata McGraw-Hill.
10. Woodworth, R.S. & Schlosberg, H. (reprint 2008, 6th ed.), *Experimental Psychology*. ND: Oxford & IBH Publishing Co. Pvt. Ltd.
11. Desai, B. and Abhyankar, S.C. (2001). *Prayogik Manasashastra ani Samshodhan Paddhati*. Pune: Narendra Prakashan.
12. Anastasi, A. & Urbina, S. (2009). *Psychological testing*. N.D.: Pearson Education.
13. Chadha N.K.(2009),*Applied Psychometry*,Sage Publication Pvt Ltd.New Delhi.
14. KaplanR.M.&Saccuzzo D.P.(2005) *Psychological Testing,Principles,Applications and Issues*.Sixth Ed. Cengage Learning India,Pvt Ltd.
15. Test manuals

SAMPLE QUESTION PAPER PER BATCH PER SET

Set _____

Seat No. _____

Question 1- Statistical problems

Question 2- Read the following questions carefully, and mark your two preferences each for Section I and Section II:

Section I		
Sr. No.	Preference No.	Questions
1.		
2.		
3.		
4.		
Section II		
Sr. No.	Preference No.	Questions
1.		
2.		
3.		
4.		

Write the material you require for conducting the practical assigned to you:

- 1)
- 2)
- 3)
- 4)
- 5)