GUJARAT UNIVERSITY Department of Psychology Semester : I (In force from June -2010)

Advance Experimental Psychology (PSY401)

Main objectives:

The course aims of familiarizing students with experimental research, experimental methods and various experimental designs.

The scheme of question paper:

- 1. The paper consists of five units.
- 2. Each unit should be given equal weight age in examination.
- 3. Total marks :70

The paper will consist of the following five units.

Unit: I Psychological Research and Concept of Variables and its types.

- Definition of psychological research.
- Types of psychological research.
 - -Theoretical research and its types.
 - -Empirical research and its types.
- Concept of variable.
- Types of variables.
- Interdependent of independent and dependent variable.

Unit: II Control of Relevant Variable.

- Types of control techniques.
 - Matching.
 - Randomization.
 - Counter balancing.
- Types of relevant variables and its control
 - Subject relevant variables and its control
 - Situational relevant variables and its control
 - Sequence relevant variables and its control

Unit: III Classical Psychophysics

- Basic concept of psychophysics
- Psychophysical methods
- Method of minimal changes
- Determination of absolute and deferential limen by the method of minimal changes
- Method of constant stimuli
- Determination of AL and DL by method of constant stimuli
- Method of average error
- Determination of PSE by method of average error
- Waber's law
- Psychophysical scales

Unit: IV Verbal Learning and Forgetting

- Meaning of verbal learning
- Function of verbal learning
- Basic determinants of verbal learning
- Definition of forgetting
- Types of memory
- Factor effecting on memory
- Retroactive inhibition and proactive inhibition
- Experimental designs of retroactive inhibition and proactive inhibition
- Interference theory of forgetting
- Measurement methods retention

Unit: V Experimental Designs

- Before and after design
- Quasi experimental design
- Complete randomized design
- Two groups simple randomized design
- Random replication design
- Randomized block design
- Factional design
 - Simple factorial design
 - Complete factorial design

REFERENCE BOOKS

- 1. M. R. D'amato (1990): 'Experimental Psychology' Methodology, Psychophysic and learning TMH Edition.
- 2. Barry and Mortan (1985): 'Experimental Methods in psychology McGraw.
- 3. Broota K. D. (1992): 'experimental designs in behavior research' New Delhi Wily Esterm.
- 4. Prof. C. B. Dave, Dr Dipak Bhatt, Dr. N. S. Patel and Dr. D. J. Panchal (1998): 'Experimental Psychology Theory and Statistics', Viral Prakashan, A'bad.

Semester- I

Course Number : PSY 402

Course Title : Research Methods & Measurement in Psychology (Basic concept)

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weightage in examination.
- 3. Total marks are 70.

Objectives :

- 1. To provides information about basic concepts of Research Methods
- 2. To. Expose the students various aspects of research process.

Unit-IIntroduction

- 1. Meaning and characteristic of Research, Nature of research in Behavioral science.
- Types of Research Major steps of the research process

Unit- II

1. Research problems

Definition, nature, and characteristics of research problems. Sources of research problems

2. Research Hypothesis

Meaning and nature of research hypothesis. Source and varieties of research hypothesis

Unit- II Working with literature

- 1. The importance of working with literature, Finding literature, e-Journals and e-books
- 2. Managing the literature

Unit- IV Varieties of Research studies

- 1. Descriptive research and Exploratory study
- Methods of sampling Probability sampling . Non probability sampling.

Books :

- 1. Abdi, Herve, Edelman, B, Valetin D.and Doling W.J. (2010) Experimental Design and Analysis for Psychology. Indian Edition. New Delhi . Oxford University.
- 2. Edwards A.L. (1968) Experimental Design in Psychological Research .N.V. Holt. Renehart 8 winston.
- 3. O' Leary zing (2009) The essential Guide to Doing Research . New Delhi vistaar publications.
- 4. Kerlinger, F.N. And lee, H.B.(200) Foundation of behavioral research 4th Edition. NewYork. Harcourt college publication.

Semester –I

Psychology of Emotion Part – I: Course number- PSY403

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weightage in examination.
- 3. Total marks are 70.

Objectives :

- 1. To enable the students to know aspects of emotion
- 2. To provide information of measurement of emotional aspects

Unit-I Basic issues

- 1. Meaning of Emotion
- 2. Components of Emotion
- 3. Types of Emotion

Unit- II Approaches of Emotion

- 1. Cognitive
- 2. Biological
- 3. Behavioral
- 4. Phenomenological

Unit- II Physical Bases of Emotion

- 1. Central mechanism
- 2. Peripheral mechanisms

Unit- III Changes in Emotion

- 1. Short term changes
- 2. Long term changes

Unit-IV Measurement f Emotion

- 1. Physiological methods
- 2. Psychological methods
- 3. Lie- detector

Unit-V Theories of Emotion

- 1. Basic Theories
 - 1. James- langes theory
 - 2. Cannon –bard theory
- 2. Cognitive theories
 - 1. Schachterls Two factor Theory
 - 2. Cognitive Appraisal Theory of Lazarus

Books:

- Atkingson , R.L. Atkinson R.C. , Smith EE Bem , DJ. And Nolen- Hoekema, S(200). Hlrgad's introduction to Psychology (13th Eds.) New York: Harcour collage publication.
- Averill, J.A. (1980) A constructive view of emotion In R. Plytchik and Kellerman (Eds.) Emotion : Theory , research and experience : Vol.1, Theories of Emotions, New york : Academic press.
- 3. Beaumount J.G. (1983) Introduction to human neuro psychological New

York : Guildford.

- 4. Carlson, Neil , R. (2007) Foundation of Physiological Psychology. New Delhi : Person Education.
- 5. De Rivera , J. (1977) A structural theory of the emotions. New York: International Universities press.
- 6. Le Doux, J.E. (1993) Emotional networks in the brain. In M.lewies 8 J.M.Havild (Eds.) Hnad book of emotions New York : Guil ford press.
- 7. Pinel, J.P.J (2007) Biopsychology. New Delhi: Person Education
- Strongman (200) The psychology of emotion: Theories of emotion in Perspective (4th Editions.) New York : Johan Willey and Sons.

Semester 1 - In force from June 2010

Child Development (PSY 404)

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weight age in examination.
- 3. Total marks are 70.

Aims and Objective of this paper is to give the student knowledge about the foundations of child development in research and practice. In case they want to practice as Child Psychologists, that is, maybe working with a pediatrician in a hospital, these basics will give them knowledge about the normal and abnormal development in a child.

Unit I

History, Theory and applied directions

- Child Development as a scientific, Applied and Interdisciplinary field
- Basic Issues
- Historical foundations
- Theoretical perspectives
 - Psychoanalytical
 - Behaviorism
 - Social learning
 - Piaget's Cognitive Development

Unit II

Research strategies

- Common methods used to study children
- Reliability and validity
- Clinical research design
- Designs for studying development
- Ethics in research on children

Unit III

Foundations of Development

- Prenatal development
- Childbirth
- Infancy
 - The newborn
 - Motor development
 - Perceptual development
- Puberty

Unit IV

Cognitive Development

- Piaget's Cognitive Developmental theory
- The Sensorimotor stage
- The Concrete Operational Stage
- The Formal Operational Stage
- Evaluation of Piaget's theory

Unit V Information processing approach

- General models
- Developmental theories

Attention Memory Intelligence – definition – intelligence test for children – computation and distribution of IQ scores

Semester 1

Psychopathalogy Part- I (PSY 405EA

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weightage in examination.
- 3. Total marks are 70.

Aims and Objectives of this paper, which is an important area of clinical psychology, is to enhance the understanding of the students of the latest diagnostic classification of DSM-IV, used by professionals like, clinical psychologists and psychiatrists for diagnosis and treatment. This course would equip the students to do practice and research after more intensive practical training in future.

Unit I

Abnormal Psychology and Historical and Contemporary Views of Abnormal Behavior

- What Do We Mean by Abnormal Behavior?
- How Common Are Mental Disorders?
- Research Approaches in Abnormal Psychology

Unit II

Causal Factors and Viewpoints in Abnormal Psychology

- Causes and Risk Factors for Abnormal Behavior
- The Biological Viewpoint and Biological Causal Factors
- The Psychosocial Viewpoint & Causal Factors
- The Sociocultural Viewpoint & Causal Factors

Clinical Assessment

- The Basic Elements in Assessment
- Psychosocial Assessment
- Classifying Abnormal Behavior

Unit III

Stress and Adjustment Disorders

- What Is Stress?
- The Effects of Severe Stress
- Adjustment Disorder: Reactions to Common Life Stressors
- Post-Traumatic Stress Disorder: Reactions to Catastrophic Events
- Prevention and Treatment of Stress Disorders

Panic, Anxiety, and their Disorders

- The Fear and Anxiety Response Patterns
- Overview of the Anxiety Disorders
- Specific Phobias
- Social Phobias
- Panic Disorder With and Without Agoraphobia
- Generalized Anxiety Disorder
- Obsessive-Compulsive Disorder
- General Sociocultural Causal Factors for All Anxiety Disorders

Unit IV

Mood Disorders and Suicide

- What Are Mood Disorders?
- Unipolar Mood Disorders
- Causal Factors in Unipolar Mood Disorders
- Bipolar Disorders
- Causal Factors in Bipolar Disorder
- Sociocultural Factors Affecting Unipolar and Bipolar Disorders
- Treatments and Outcomes
- Suicide

Somatoform and Dissociative Disorders

- Somatoform Disorders
- Dissociative Disorders

Unit V

Eating Disorders and Obesity

- Clinical Aspects of Eating Disorders
- Risk and Causal Factors in Eating Disorders
- Treatment of Eating Disorders
- Obesity
- Treatment of Obesity

Health Problems and Behavior

- Psychological Factors in Health and Disease
- General Causal Factors in Physical Disease
- Treatments and Outcomes

Semester : I

Work Psychology PSY 405EB

Main Objectives :

The course aim of familiarizing the students with the various aspects of nature of work in modern society.

The scheme of question paper:

- 1) The paper consists of five units.
- 2) Each unit should be given equal weightage in examination.
- 3) Total marks :70

The paper will consist of the following five units.

Unit I : Principle, Practice and Problems

- 4. The scope and historical development of industrial organization and psychology.
- 5. Challenges for industrial organizational psychology
- 6. Industrial organization as a career : Training and Employment
- 7. Problems for industrial organizational psychology
- 8. Area of Industrial organizational psychology

Unit II : Research Methods

- Why study Research Methods?
- Methods of psychological Research
- The Experimental method
- Selecting Research participants
- The naturalistic observation method
- Surveys and opinion polls

Unit III : Employee Selection

- The recruitment process
- A Review of the selection process
- Fair employment practices
- Job Analysis

Unit IV : Performance Appraisal

- Performance Appraisal : Why do it?
- Objective performance Appraisal methods
- Judgmental performance Appraisal methods
- Performance Appraisal for managers
- Bias in performance appraisal

Unit V : Training and Development

- The scope of Organizational Training Program
- The Goals of Organizational Programs.
- Staffing for Organizational Training Programs.
- Training Methods
- Career Development and Planning
- Evaluating Organizational Training Program.

REFERENCE BOOKS

- Duane P. Schultz and Sydney Ellen Schults (2004) : Psychology and work Today. Published by Pearson Education Pte. Ltd., Indian Branch Delhi.
- Tiffin J. and Mc. Covmic, E.J. (1971) Industrial Psychology, New Delhi : Prentice Hall India.
- Luthans, Fred (1987) Organizational Behaviour, McGraw-Hill Serves, International student Edition. Times Printer Singapore.
- Von Haller Gitmber (1971): Industrial and Organizational Psychology. New York, Mc Graw Hill.
- Anastasi A, (1979) : Fields of Application Psychology. McGraw Hill, Kogakusha Ltd. Tokyo.

Semester 1 - In force from June 2010

Health Psychology Part- I (PSY 406E)

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weightage in examination.
- 3. Total marks are 70.

Aims and Objectives of teaching this very important paper of Health Psychology, which is one of the areas of Clinical Psychology, is to familiarize the students about the present scenario at the global level relating to the psyche of the human being regarding health related behavior, which is a fast growing problem today. In case, the students wish to practice as Health Psychologist in a hospital, these basics along with intensive training would help them in future.

Unit I

- Definition of Health Psychology Brief History Need of the field of Health Psychology
- Systems of the body Cardiovascular system Respiratory System Digestive System

Unit II

- Introduction to Health behaviors
- Cognitive Behavioral approaches to Health Behavior change
- Health Enhancing behaviors : Exercise Diet Weight Control

Unit III

- Stress Sources of chronic stress
- Social support
- Management of stress

Unit_IV

• What is a Health Care Provider? – Nature of patient-provider communication – Improving patient-provider communication

Unit V

- Pain and its management
- Clinical issues in pain management
- Pain control techniques
- Management of chronic pain.

Basic Books:

• Taylor Shelley E(2003) " Health Psychology "(5'th Edition) MC Graw Hill, USA

Reference Books:

- M. Robin DiMatteo, Leslie R Martin(2002) "Health Psychology ", Pearson Education Publication(Indian Edition), Delhi.
- Malhotra S., Batra P., Yadava A(2007), "Health Psychology", Commonwealth Publications, New Delhi.
- Woodworth R.S. (2000) "Health Psychology ", Khel Sahitya Kendra, Delhi.
- Sarafino E.P. (2000) "Health Psychology: Biopsychological interactions", 3'rd Edition, Jhon Wiley & Sons Inc, USA.
- Marks D. F., Murray M., Evans B., Willig C., Woodall C, Sykes C.M. (2008), "Health Psychology: Theory, Research & Practice", 2nd Edition, Sage Publications, New Delhi.

GUJARAT UNIVERSITY Department of Psychology Semester : II (In force from June -2010)

Advance Experimental Psychology (Practical) (407PR)

Main objectives:

To provide training to the students in conducting Experiments.

The scheme of question paper:

- 1. The paper will consist of eight practicals to be performed and journal prepared.
- 2. Total marks :70

List of Practical (Any eight)

- 1. Method of minimal changes- two point threshold for different areas of skin
- 2. Verification of Weber's law
- 3. Bilateral transfer Mirror tracing
- 4. Transfer in Maze learning
- 5. Habit interference
- 6. Retention for completed and interrupted task Zeigarnik effect
- 7. Retention as function of meaning fullness
- 8. Retroactive inhibition
- 9. Depth perception
- 10. Mental set

REFERENCE BOOKS

- 1. R. S. Woodworth & H. Schlosberg (1954): 'Experimental Psychology'.
- 2. B. J. Underwood (1966): 'Experimental Psychology'.
- 3. Kanawala S. C.(2000) : "Prayogik Manovigyan" University Granth Nirman Board, Ahmedabad.

Course Number: PSY 408

Course Title : Research Methods & Measurement in Psychology Statistic

Scheme of the Question Paper

- 1. This paper consists of 5 units.
- 2. Each unit should be given equal weightage in examination.
- 3. Total marks are 70.

Objective:

- 1. To. Provide information about methods
- 2. To oriented the students to the concepts of basic statics
- 3. To orient the students for application of computer in research

Unit- I Qualitative Research

- 1. What is Qualitative Research, Characteristics of Qualitative research
- 2. Qualitative V/S Quantitative research, Case study and other methods

Unit- II Methods of Data collection

- 1. Basic methods, Observation, interview, Questionnaires Projective techniques.
- 2. Available data as source material
- 3. Personal Documents , Public Documents

Unit- III Introduction of Computer& Research reports

- 1. Use of computer- Contribution of computer in research
- 2. Communication in Psychology- Research report, Target group, Types of Report, Effective report writing, structure of report.

Unit-IV Statistical Methods – I

1. Product moment correlation (All formulas) Tau. Coefficient concordance

(U) signed ranks test.

Unit- V Advanced Method – II

't' test chi- Square cX²

One way analysis of variance (f test)

Books:

1. Aron, Authur, Aron, E.N. and Coups, E.J. (2007) statistic for Psychology,

New Delhi : Person Education

- Best, J.W. and Kahn, J.V. (2006) Research Foundation New Delhi Prentice Hall of India Pvt. Ltd.
- Kerlinger , F.N.and Lee H.B. (2000) Foundation of Behavioral Research 4th Edi. New York: Harcourt Collage Publications
- 4. Mangal S.K. (2008) statistic in Psychology and Education New Delhi : Vistaar Publication

Course No. Psy 409

Course Title : Psychology of Emotion – II

Objectives :

- 1. To provide information of various aspects of Emotions
- 2. To provide information of Indian approach of Emotions

Unit- I Communication of Emotion

- 1. Facial expression of emotions : Innate response
- 2. Nature Basic of the communications of emotions : Recognition and expression

Unit-II Nonverbal Communication and Emotions

- 1. Paralanguage and proxemics
- 2. Body Language

Unit- III Culture and Emotion

- 1. Similarity and difference
- 2. Indian approach emotions The Gita on Emotions Patanjali on Emotions Buddhist views The Jaina views.

Unit-IV Emotional Intelligence

- 1. Definition and models of emotional intelligences
- 2. Assessment of emotional intelligences

Unit- V Emotional Disorders

- 1. Stress
- 2. Anxiety Disorders

Books :

1. Bar – On R, (2006) The Bar- on models of emotional social intelligence

Psicothema, 18, supl. 13-25.

2. B. Kuppuswamy (2001) Elements of Ancient Indian Psychology, New Delhi :

Konark Publications Pvt.Ltd. p 165-179.

- 3. Goleman, D (1995) Emotional intelligence, New York : Bantom Books.
- 4. Paranjpe A.C. (1999) Emotion: A Perspective from the Indian Tradition Asian perspectives on Psychology : New Delhi : Suge.

Child Development (PSY410)

Unit I

Language Development

- Prelinguistic development
- Phonological
- Semantics
- Grammatical
- Pragmatic

Unit II

Emotional Development

- Development of Emotional Expression
- Understanding and Responding to the Emotions of others
- Temperament and development

Unit III

Self and Social Understanding

- Emergence of Self and Development of Self-concept
- Self-esteem
- Constructing an identity
- Thinking about others and other relations

Unit IV

Moral Development

- Morality as societal norms (Psychoanalytical theory, Social Learning theory)
- Morality as social understanding Piaget's theory
- Moral reasoning of young children
- Gender stereotypes and gender roles
- Gender identity

Unit V

The Family

- Family as a social system
- Socialization within the family

Peers & Schooling

- Development and Influences on peer sociability
- Friendship
- Peer acceptance, peer groups, peer relations and socialization
- Schooling

References

Basic Book

 Berk Laura E (2003) "Child Development" (Sixth Edition) Pearson Education (Indian Edition), New Delhi

Reference Books:

- Berk Laura E (2002) Sixth sditions, Prentice Hall of India, New Delhi
- Tyagi M (2007) Developmental Psychology Avishkar, Publishing Jaipur
- Santrock J.W (2004) Span Development Tata MC Grow Hill New Delhi
- Hurlock E. B. (1978) Child Development, MC Grow Hill, New Delhi

Health Psychology (PSY 411)

Unit I

Management of chronic illness

- Quality of life
- Coping with chronic illness
- Rehabilitation and chronic illness
- Psychological interventions and chronic illness

Unit II

Pyschological issues in advancing and terminal illness

- Death across the life span
- Psychological issues in advancing illness
- Psychological management of the terminally ill
- Problems of survivors

Unit III

- Coronary Heart Disease
- Hypertension
- Diabetes

Unit IV

- AIDS
- Cancer
- Arthritis

Unit V

Health Psychology: Challenges for the future

- Health promotion
- Trends for the future
- Becoming a Health Psychologist

References

Basic Book:

 Taylor Shelley E (2003) "Health Psychology" (5th Edition) McGraw Hill publication, USA

Reference Books:

- M. Robin DiMatteo, Leslie R Martin (2002) "Health Psychology", Pearson Education publication (Indian Edition), Delhi.
- Malhotra S., Batra P., Yadava A (2007), "Health Psychology", Commonwealth Publications, New Delhi.
- Woodworth R. S. (2000) "Health Psychology", Khel Sahitya Kendra, Delhi.
- Sarafino E. P. (2000) "Health Psychology: Biopsychological interactions", 3rd Edition, John Wiley & Sons Inc, USA.
- Marks D. F., Murray M., Evans B., Willig C., Woodall C, Sykes C. M. (2008), "Health Psychology: Theory, Research & Practice", 2nd Edition, Sage Publications, New Delhi.

Recommended International Journals:

- Journal of Behavioral Medicine
- American Psychologist
- Journal of Social and Clinical Psychology
- Journal of Personality and Social Psychology
- Journal of Consulting and Clinical Psychology
- American Journal of Psychiatry
- Psychosomatic Medicine
- Journal of Health Psychology
- Journal of American Medical Association
- Journal of Health and Social Behavior
- British Journal of Clinical Psychology

Recommended National Journals:

- Indian Journal of Clinical Psychology, New Delhi
- Journal of Psychological Researches, Madras Psychological Society, Chennai
- Indian Journal of Community Psychology, U.P.
- Indian Journal of Applied Psychology, Chennai
- Indian Journal of Social Science Researches, Benaras Hindu University, Varanasi.
- Journal of the Indian Academy of Applied Psychology, Puducherry.

Work PsychologyPart II (412 EA)

Unit I

Personality Disorders

- Clinical Features of Personality Disorders
- Categories of Personality Disorders
- Treatments and Outcomes
- Antisocial Personality and Psychopathy

Substance-Related Disorders

- Alcohol Abuse and Dependence
- Drug Abuse and Dependence

Unit II

Sexual Variants, Abuse, and Dysfunctions

- Sexual and Gender Variants
- Sexual Abuse
- Sexual Dysfunctions

Schizophrenia and Other Psychotic Disorders

- The Clinical Picture in Schizophrenia
- Subtypes of Schizophrenia
- What Causes Schizophrenia
- Treatment and Clinical Outcome

Unit III

Cognitive Disorders

- Brain Impairment in Adults
- Delirium
- Dementia
- Amnestic Syndrome
- Disorders Involving Head Injury
- Treatments and Outcomes

Disorders of Childhood and Adolescence

- Maladaptive Behavior in Different Life Periods
- Common Disorders of Childhood
- Learning Disorders and Mental Retardation
- Planning Better Programs to Help Children and Adolescents

<u>Unit IV</u>

Therapies

- An Overview of Treatment
- Measuring Success in Psychotherapy
- Psychological Approaches to Treatment
- Psychotherapy and Society

Unit V

Contemporary and Legal Issues in Abnormal Psychology

- Perspectives on Prevention
- Controversial Legal Issues and the Mentally Disordered
- Organized Efforts for Mental Health
- Challenges for the Future

References

Basic Book

Butcher J. M., Mineka S., Hooley J. M. ,(2007), "Abnormal Psychology", (13th Edition), Pearson Education (Indian Reprint) (New DSM-IV-TR)

Reference Books

- Sarason I. G. & Sarason B. R. (1996), "Abnormal Psychology: The problem of Maladaptive Behavior", (8th Edition), Prentice-Hall of India Pvt Ltd, New Delhi.
- Barlow D. M. & Durand V. M. (2007), "Abnormal Psychology: An Integrative Approach", (4th Edition), Thomson-Wadsworth publishers, Delhi. (Indian Reprint).

Work PsychologyPart II (PSY412 EB)

Main Objectives :

The course aim of familiarizing the students with the various aspects of nature of work in modern society.

The scheme of question paper:

- 1. The paper consists of five units.
- 2. Each unit should be given equal weight age in examination.
- 3. Total marks :70

The paper will consist of the following five units.

Unit I : Motivation, Job Satisfaction and Job Involvement

- Content theory of motivation
- Process theory of motivation
- Job Satisfaction : The quality of Life at work
- Job Satisfaction and on the job behavior
- Job Involvement and Organizational commitment

Unit II : Working Condition

- Physical working conditions
- Work Schedules
- Psychological and Social Issues

Unit III : Safety, Violence and Health in the Workplace

- Accidents
 - Causes of Accidents
 - Accident Prevention
- Violence in the work place
- Alcoholism in the workplace
- Drug use in the workplace
- Computers and Physical Health Issues

Unit IV : Stress in the workplace

- Stress
- Psychological effects on stress
- Individual Differences in Stress Responses
- Work-Family conflicts
- Causes of stress in the workplace
- Effects of stress in the workplace

Unit – V : Treating Stress in the Workplace

- Engineering Psychology
- History and scope of Engineering psychology
- Time and motion study
- Person-machine systems
- Workplace design
- Computers
- Industrial robots

REFERENCE BOOKS

- Duane P. Schultz and Sydney Ellen Schults (2004) : Psychology and work Today. Published by Pearson Education Pte. Ltd., Indian Branch Delhi.
- 2) Tiffin J. and Mc. Covmic, E.J. (1971) Industrial Psychology, New Delhi : Prentice Hall India.
- 3) Luthans, Fred (1987) Organizational Behavior, McGraw-Hill Serves, International student Edition. Times Printer Singapore.
- 4) Von Haller Gitmber (1971): Industrial and Organizational Psychology. New York, Mc Graw Hill.
- 5) Anastasi A, (1979) : Fields of Application Psychology. McGraw Hill, Kogakusha Ltd. Tokyo.