

Annexure No.	53 E
SCAA Dated	29.02.2008

BHARATHIAR UNIVERSITY : COIMBATORE-641 046
DEPARTMENT OF PSYCHOLOGY
DEFENCE INSTITUTE OF PSYCHOLOGICAL RESEARCH (DRDO) Delhi-110054
M. Sc. APPLIED PSYCHOLOGY (Military Stream)
(SDE) (Distance Mode - Annual Pattern)
(For the students admitted from the academic year 2008 and on wards)

Year	Paper No.	Title of the paper	Maximum marks
I	PSYSDE01	Advanced General Psychology	100
	PSYSDE02	Life-Span Psychology	100
	PSYSDE03	General Military Psychology	100
	PSYSDE04	Experimental Psychology Practical-1	100
	PSYSDE05	Experimental Psychology Practical-2	100
II	PSYSDE06	Advanced Military Psychology	100
	PSYSDE07	Military Health Psychology	100
	PSYSDE08	Research Methodology	100
	PSYSDE09	Project work	200
Total			1000

CORE COURSE-I
PSYSDE01 – ADVANCED GENERAL PSYCHOLOGY (SDE)

Unit-I: Definitions and Bases of Human Behaviour

Definition of psychology. Types of Psychological Research. Contemporary approaches to Psychology. Scope of Psychology.

Biological bases of Human Behavior: Nervous system. Neurons. Structures and Functions of the Brain. Endocrine system. Genetic and Evolutionary Blue print of Behavior.

Unit II: Sensation & Perception, Learning & Memory

Sensation: Visual system: Vision & Color Vision. Auditory system and other Senses. Perception: Constancy Phenomena, Loss of organization, Types of Perception-Form, Depth, Movement. Illusions- Types of Illusion. Extrasensory Perception.

Learning: Nature of learning-Classical conditioning-Operant conditioning-Observational Learning-Cognitive factors and Learning. **Memory**: Nature of Memory-Memory Coding, Memory storage-Memory Retrieve- Forgetting.

Unit - III: Thinking & Language, Intelligence & Creativity

Thinking: Concept Formation- Problem solving- Critical Thinking- Reasoning-Decision Making. Language: Language and Cognition- Language Acquisition- Language Development.

Intelligence: Theories on Intelligence-Assessment-Extremes of Intelligence-Influences on Intelligence. Creativity: Nature of Creativity-Steps in creativity Process Characteristics of Creative thinkers.

Unit - IV: Motivation & Emotion

Motivation: Approaches to Motivation – Primary Motives and Learned Motives: Hunger, Sexuality, Social Motives, Need for Achievement.

Emotion: Biology of Emotion- Non-Biological Factors in Emotion - Classification in Emotion.

Unit - V: Personality - Theories & Assessment

Theories of Personality - Psychodynamic Perspective, Behavioral and Social Cognitive Perspectives
Humanistic Perspective- Trait Perspective.

Assessment of Personality: Self-Report test- Behavioral Assessment- Cognitive Assessment-Projective Test.

Reference Books

1. Passer, M.W. & Smith, R.E. (2007). *Psychology – The Science of Mind and Behavior*. (3rd Edn). New Delhi: Tata McGraw-Hill.
2. Coon, D. & Mitterer, J. O. (2007). *Introduction to Psychology – Gateways to Mind and Behavior*. (11th Edn). USA: Thomson Wadsworth.

CORE COURSE-II

PSYSDE02 – LIFE SPAN PSYCHOLOGY (SDE)**UNIT I**

Foundations of Development - Meaning of Development changes - Basic Issues - Obstacles in studying life span development - Recent Theoretical perspectives - Methods. Genetic foundations - Reproductive choices - Environmental Contexts for Development.

Prenatal Development - Characteristics - Importance of Conception - Prenatal Environmental Influences - Attitudes of Significant people - Medical interventions - Hazard during the Prenatal period.

UNIT II

Infancy And Toddlerhood - Characteristics - Adjustments - Learning capacities - Piaget's Cognitive Developmental Theory- Information Processing - Individual Differences in Early Mental Development - Language Development.

Developmental tasks - Erikson's Theory of Infant and Toddler Personality - Emotional Development - Temperament and Development - Development of Attachment - Self-Development - Hazards.

UNIT III

Early Childhood - Characteristics - Developmental tasks - Body growth - Brain development - influences on Physical growth and Health - Motor development - Piaget's theory: The Preoperational Stage - Vygotsky's Sociocultural theory - Erikson's theory: Initiative versus Guilt

Late Childhood - Piaget's Theory: The Concrete Operational stage - Language Development - Learning in School. Erikson's theory: Industry versus Inferiority - Self- understanding – Emotional Development - Peer relations - Gender typing - Family influences - Problems of development.

UNIT IV

Puberty - Body changes - Growth spurt - Consequences of Abstract thought Effects of Puberty: changes and Deviant maturing - Hazards.

Adolescence - Characteristics - Developmental tasks - Piaget's Theory: The formal Operational Stage - Cognitive development - Emotionality - Social interests and Morality changes during adolescence - Sex interests. Erikson's theory: Identity versus Identity Confusion.

UNIT V

Early adulthood - Characteristics - Sex - role adjustment - Erikson's theory: Intimacy versus Isolation - Family cycle - Diversity of adult lifestyles - career development - Middle adulthood - Erikson's theory: Generativity versus Stagnation - changes in mental abilities

Late Adulthood - Life expectancy - Physical changes - Memory - Erikson's theory: Ego Integrity versus Despair - Change in Self concept and Personality - Psychological well-being - Relationships - Retirement and leisure.

Reference Books:

1. Laura E. Berk, (2004), *Development through the Life Span*, New Delhi; Pearson Education
2. Hurlock, E.B(1980) *Developmental Psychology:A Life Span Approach*, New Delhi: Tata McGraw Hill.

CORE COURSE-III
PSYSDEM03: GENERAL MILITARY PSYCHOLOGY (SDE)

Unit I: NATURE AND SCOPE:

Nature, Scope of Military Psychology-Issues & implication of psychology in Military Settings-Historical perspectives of psychology in Military Applications-Changing Scenario: Emerging trends of military Psychology for the future world.

UNIT II: SELECTION, CLASSIFICATION AND PLACEMENT IN MILITARY SERVICES:

Ability tests: Individual Tests- Tests for Special Populations- Group Testing- Nature of Intelligence-Psychological Issues in Ability Testing. **Personality tests:** Self Report Personality Inventories- Measuring Interest and Attitudes- Projective Techniques- Other Assessment techniques. Psychological Assessment and Military Personnel Management- Assessment of Complex Skills and Personality Characteristics in Military Services- Military officers Selection- - Pilot selection- spatial ability and orientation of pilots- Selection of Air Traffic Control Cadets.

UNIT III: TRAINING:

Definition- The need- Analyzing training Needs- Methods of Training- Types- Responsibility for delivery of Training- Evaluation and Monitoring- International training Trends- Current Perspective.

UNIT IV: HUMAN FACTOR ENGINEERING:

What are Human Factors? Human Factors & Safety. Human Error- The Ergonomics and System Design Perspective. Helicopters and Human Factors- Human Factors and Aviation Accidents- Training and Selection- International Practices. Cultural Ergonomics- AI in US and UK Military – H.M System Research And Application.

Unit V: ENVIRONMENTAL FACTORS:

Effects of Hot and Cold Environments on Military Performance-Effects of High Terrestrial altitude on Military Performance-Sustained Military performance in continuous operations: Combatant Fatigue, Rest and sleep needs-The effects of Motion Induced sickness on Military Performance-Military performance in Acoustic Noise Environments-Effects of Atmospheric Mix and Toxic Fumes on Military performance-Military performance in sustained acceleration and vibration environments-Radiological Factors and their effects on Military performance-Underwater behaviour: Diving- Submarine.

REFERENCES:

1. **ANASTASIA. & URBINA.S. (2003)**. Psychological Testing, New Delhi, Prentice Hall of India Pvt. Ltd.,
2. **REFUVEN HALL & DAVID MANGELSDROFF.A. (1991)**. Handbook of Military Psychology, USA, John Wiley sons.
3. **FRANCIS.M.A. (2002)**. The Application of Human Factors to Personnel Licensing – Internet.

CORE COURSE-IV

PSYSDE04 – EXPERIMENTAL PSYCHOLOGY PRACTICAL – I (SDE)

Practical relevant to:

General Psychology	-	4
Life Span Development Psychology	-	3
Advanced Social psychology	-	3

10

CORE COURSE-V

PSYSDE05– EXPERIMENTAL PSYCHOLOGY PRACTICAL – II (SDE)

Practical relevant to:

Organizational Psychology	-	4
Psychopathology and mental hygiene-	-	4
Research Methodology	-	2

10

CORE COURSE-VI
PSYSEM06: ADVANCED MILITARY PSYCHOLOGY (SDE)

UNIT I: PREJUDICE AND DISCRIMINATION- What they are and how they Differ- The origins of Prejudices: Direct Inter group conflict- Social Categorization- Ultimate Attribution Error- Early Socialization- Cognitive Sources of Prejudice- Homogeneity- Challenging- Prejudice Based on Gender.

SOCIAL INFLUENCE: Changing Others Behavior- Conformity: Group influence in Action- Compliance: To ask something is to Receive Obedience: Social Influence by Demand- Persuasion: The process of Changing Attitudes- When Attitude change fails: Resistance to Persuasion cognitive Dissonance- Propaganda- Interpersonal Communication.

UNIT II: INDIVIDUAL AND GROUP BEHAVIOUR:

Morale, Cohesion and Esprit de corps-Cultural and Societal Factors in Military Organizations-Combat Stress Reactions-Non-combatant stress in Soldiers: Manifestations, Measurement, and Coping Strategies- Personality factors in Military Psychology-Interpersonal Relations for Group Effectiveness- Women's Role in the Military.

UNIT III: LEADERSHIP- Its nature and Impact in Groups- Communication Structures- Models of Leadership- Gender Factors- Theories of Leadership- Leadership styles- Types of Power- Group Structures- Leadership in Military Performance: Optional Leadership in Small army Units- Leadership in battle and Garrison- A frame work for understanding the differences and preparing for both- Executive Leadership.

UNIT IV: COMBAT MOTIVATION:

The Will to fight-why does soldiers fight- (Submission pride, Loyalty, fear, unit as one environment, motivation of the terrorist - Military Staying power - Competence of enlisted personnel personality characteristics, motivation, group cohesion and effectiveness leadership, Organisational and environment characteristics Military disintegration – Causes – Solutions - Fighting Spirit in Nuclear Age.

UNIT V: MORALE, COHESION AND ESPIRIT DE CORPS - Cultural and Societal Factors in Military organizations- Individual and Group behavior in extreme situations and environments- Combat stress reactions- Non-Combat Stress in Soldiers- How it is Manifested- how to measure it- Personality in Military Psychology.

Unit VI: PSYCHOLOGICAL OPERATIONS:

Psychological warfare: history, functions of psychological warfare, definition of psychological warfare, Propaganda and Active Measures-Hostage negotiation: Issues and Applications- Psychology during emergency (Hijacking, Cyclone, Flood & Earthquake etc.) - Cyber Warfare-Insurgency-Terrorism. - Religious Terrorism - Ideological Terrorism - Nuclear Terrorism.

REFERENCES:

1. **BARON.R.S & BRYNE.D. (2000).** Social Psychology: Understanding Human Interaction, Boston, Allyn and Bacon.
2. **DONALD, et.,al.(1999).** Social Psychology, UK, Oxford University Press.
3. **NEW STRESS. J.W. & DAVIS.K. (1993),** Organizational Behavior: Human Behavior at Work,New York, McGraw-Hill.
4. **REUVEN GAL and ADAVID MANGEL SDORFF.A. (1991),** Handbook of Military Psychology, USA, John Wiley Sons.

CORE COURSE-VII
PSYSDEM07: MILITARY HEALTH PSYCHOLOGY (SDE)

UNIT I: NATURE AND SCOPE OF HEALTH AND CLINICAL PSYCHOLOGY

Clinical Psychological Assessment – DSMIV - ICD10&11- Psycho diagnostics- Psychological well Being.

UNIT II: PSYCHOLOGICAL DISORDERS AND THERAPIES

Neurosis-Psychoses- Behavior Disorders- Mood Disorders- Psychological- Well- being- Types of Therapies- Psychotherapy- Behavior Therapy- Gestalt Therapy- Eclectic Therapy- Promotion of Psychological Well-being- Consultation in Military Setting.

UNIT III: STRESS

Nature – Environmental Stressors- Types of Stress- Responding to Stress- Potential Effects of Stress- Psychological Problems and Disorders- Psychosomatic Illnesses – Stress Coping Strategies. Non Combat Stress among Soldiers- Manifestations- Measurement- Coping up. Combat Stress Reactions.

UNIT IV: PSYCHOTHERAPY AND BEHAVIOURAL CHANGE-

Neuropsychological Applications in Military Settings – Substance Abuse Programme in Military Settings- The promotion of Wellness- Consultation in a Military Setting.

UNIT V: CLINICAL AND CONSULTATIVE PSYCHOLOGY:

Prisoners of war: Readjustment and Rehabilitation-Clinical psychological assessment-Education and Training: Professional and paraprofessional-Psychotherapy and Behaviour change-Neuropsychological applications in Military Settings-Substance Abuse program in Military Settings-The promotion of wellness-Consultation in a military setting- family welfare measures.

REFERENCES:

1. **REUVEN GAL and ADAVID MANGEL SDORFF.A. (1991)**, Handbook of Military Psychology, USA, John Wiley Sons.
2. **SARASON.I.G and SARASON.B.R (2002)** Abnormal Psychology: The problem of Maladaptive Behavior (10th Edition) India Pearson Education Pvt. Ltd.

CORE COURSE-VIII
PSYSDE08: RESEARCH METHODOLOGY (SDE)

Unit I

Meaning Of Research: Objectives, Types, Approaches, Significance of Research – Research Process - Criteria of Good Research – Problems encountered by Researchers in India.

Measurement Scales: Nominal Scales, Ordinal Scales, Interval Scale, Ratio Scale – Source of Errors in Measurement – Test of Validity – Test of Reliability – Test of Practicality.

Unit II

Research Problem: What is a Research Problem? – Selecting the Problem – Defining the Problem – Techniques involved in defining a Problem. Hypothesis: What is a Hypothesis? – Characteristics of Hypothesis – Testing of Hypothesis.

Research Design: Meaning – Need – Features of a Good Design – Related Concepts – Different Research Designs - Basic Principles of Experimental Designs – Important Experimental Designs.

Unit III

Sampling Designs: Census and Sample Survey – Implications of a Sample Design - Steps in Sample Design – Criteria of Selecting a Sampling Procedure – Characteristics of a Good Sample Design – Different types of sample designs - Random Sample – Complex Random Sample Designs.

Sampling Fundamentals: Need for Sampling – Fundamentals Definitions – Important Sampling Distributions – Central Limit Theorem – Sampling Theory – Concept of standard error - Sample size and its determination.

Unit IV

Methods Of Data Collection: Collection of Primary Data – Observation Method – Interview Method – Collection of data through questionnaires - Collection of data through schedules – Difference between Questionnaires and Schedules – Some other methods of Data collection - Collection of Secondary Data – Case Study Method.

Processing And Analysis Of Data: Processing operations – Problems in Processing- Types of Analysis – Statistics in Research – Correlation – Chi-square – t-test, ANOVA – Multivariate Analysis Techniques.

Unit V

Interpretation and Report Writing: Meaning – Why Interpretation? – Technique of Interpretation – Precaution of Interpretation – Significance of Report Writing – Steps in Writing Report – Layout of the

Research Report – Types of Report – Oral Presentation – Precautions for writing Research Reports.

Computer And Its Role In Research: Computer Applications – The Computer System – Internet – Computer and Researchers.

References:

1. **Kothari C.R.** Research Methodology – Methods and Techniques, Second Edition, New Delhi, New Age International (P) Ltd 2004.
2. **Kerlinger F.N.** Foundations of Behavioral Research, New York, Reinhart & Weinstein 1973.

CORE COURSE-IX**PSYSDE09: PROJECT WORK REQUIREMENTS (SDE)**

A candidate undertaking project work is already equipped with the theoretical knowledge in the discipline and also practical skills in Psycho diagnostic testing including administration and interpretation of cognitive and personality tests using objective and projective Psychology and Psycho diagnostic under the direct supervision of a qualified Psychologist, wherever available in an organizational setting.

During the project work the candidate may be permitted to participate under the supervision of the teacher in the diagnostic testing and also to attend to application of the knowledge of Psychology in an organization setting.

Besides the candidate may be required to collect information regarding the following:

- The History of the Organization with the Mission Statement of the Organization along with the details about the pioneer of the Organization. The Historical Development of the Psychology Division at the Organization.
- The Privileges of the Psychologists if any, in the Organization. The role and the role exception of the Psychologists.

- The Test privileges available at the Organization. The details of the tests acceptance procedures. The test trails, approval, monitoring and the updating.
- The counseling Privileges available at the Organization. Especially about the Individual and group Counseling and their Administering Procedures Documents maintained, regular counseling meetings and the follow-up details.
- Some selected Case Studies in details.

A project Report is to be submitted on or before Dec 14th of the year during which the project Work is completed. The Report is required to document the Organizational exposure and training gained during the period of Project Work.

In case a candidate fails to submit the Project Report writing the date specified he/she might be granted extension of time to submit the report within 3 months, at one time, not exceeding two such extensions for the entire course.
