

TANTIA UNIVERSITY, SRI GANGANAGAR

Syllabus for the Entrance Examination of Ph.D.

Subject- Physical education

Maximum Marks-100

Part A- 50 (Research Methodology)

Part B- 50 (Subject Wise)

PART-A

Research Methodology and Statistics

- UNIT 1: Meaning of Research
Aims, nature and scope of research
Prerequisites of research
- UNIT 2: Research Problem
Meaning of research problem Sources of research problem Characteristics of a good research problem
Hypothesis: Meaning and types of hypothesis. Research proposal or synopsis.
- UNIT 3: Types and Methods of Research
Classification of Research
Pure and Applied Research
Exploring or Formulative Research
Descriptive Research
Diagnostic Research/Study
Evaluation Research/Studies
Action Research
Experimental Research
Historical Research
Surveys
Case Study
Field Studies
- Unit 4: Review of Related Literature
Purpose of the review. Identification of the related literature. Organizing the related literature.
- UNIT 5: Data Collection (Sampling) Sampling and Population Techniques of sampling
Selection Characteristics of a good sample Types of data.
- UNIT 6: Tools of Data Collection
Observation, Interview, Questionnaire, Rating scales, Attitude scales, Schedules,
Characteristics of good research tools.

UNIT 7: Statistics

Concept of statistics, relevance in education, parametric and non-parametric data; graphical representation of data: histogram, frequency polygon, ogive and pie chart; Measures of Central Tendency: concept, computation and interpretation; measures of variability: concept, computation and interpretation; normal probability curve: concept, application and interpretation.

Correlation: concept, computation and interpretation- Product Moment, Rank Order, Biserial, Point Biserial, Phi, Contingency, Tetrachoric; significance of mean: concept, computation and interpretation of significance of t-test (correlated and uncorrelated, matched, paired-unpaired, matching- paired); ANOVA (One way) :concept, computation and interpretation, regression and prediction; chi square: concept, computation and interpretation (equal and normal probability).

UNIT 8: Research Report

Format of the research report Style of writing the report References and bibliography

Reference books:

1. Best John W. and James Kahn, V., 1989, Research in Education, Sixth Edition, Prentice-Hall of India Pvt.Ltd, New Delhi.
2. Sharma R.A., 1992, Fundamentals of Educational Research, Loyal Book Depot, Meerut, UP, India.
3. Kulbir Singh Sidhu, 1990, Methodology of Research in Education, Sterling Publishers Pvt. Ltd., New Delhi.
4. Lokesh Koul, 1997 Methodology of educational Research, third edition, Vikas Publishing House Pvt. Ltd. , New Delhi.
5. Kothari C.R., 1990, Research Methodology Methods and Techniques, Wiley Eastern Limited, New Delhi.
6. Borg Walter R., Gall Meredith D., 1983, Educational Research an Introduction, Fourth Edition, Longman, New York & London.
7. Nitko Anthony J., 1983, Educational Tests and Measurement an Introduction, Harcourt Brace Jovanovich, Inc., New York.
8. Aggarwal Y.P., 1988, Statistical Methods Sterling Publishers Pvt. Ltd., New Delhi.
9. Garret Hnery E., 1985 Statistics in Psychology and Education, Viakils, Feffer and Simon, Bombay.
10. Guilford, J.P., and Benjamin Fruchter, 1982 Fundamentals of statistics in Psychology and Education, Fifth edition, Mc Graw-Hill Book Company, New York.
11. Gupta S.C. and Kapoor V.K., 1999, Fundamentals of Mathematical Statistics, Sultan Chand & Sons Educational Publishers, New Delhi.
12. Grewal P.S., Methods of Statistics Analysis, Sterling Publishers Pvt. Ltd., New Delhi.
13. Bruce W. Tuckman, Statistics in Psychology and Education.

Part-B

Introduction to and definition, aim objectives of Physical Education and other terms- health education and recreation.

Philosophies of Education as applied to Physical Education-Idealism, Naturalism, Realism, Pragmatism,

Existentialism, Humanism.

Biological basis of Physical activity-benefits of exercise, growth and exercise, exercise and well-being sex and age characteristics of adolescent body types.

Psychological basis of physical Education- Play and Play theories, general principal of growth and development, Principal of motor- skill acquisition, transfer of training effects.

Psychological basis of physical Education-socialization process, social nature of men and physical activity, sport as cultural heritage of mankind, customs, traditions and sport, competition and cooperation.

Physiology of Muscular activity, Neurotransmission and Movement mechanism. Physiology of respiration.

Physiology of blood circulation.

Bioenergetics and recovery process.

Joints and their movements- planes and axes. Kinetics, Kinematics-linear and angular, levers.

Laws of motion, principles of equilibrium and force, spin and elasticity.

Posture, Posture deformities and their correction. Muscular analysis of various sports activities. Mechanical analysis of various sports activities.

Learning process- theories and laws of learning.

Motivation, theories and dynamics of motivation in sports.

Psychological factors affecting sports performance- viz., stress, anxiety, tension and aggression. Personality, its dimensions, theories, personality and performance.

Development of teacher education in Physical Education.

Professional courses in Sports and Physical Education in India. Professional Ethics.

Qualities and Qualifications of Physical Education

Personal. Principal of curriculum planning.

Course content for academic and professional courses.

Health-Guiding principles of health and health education. Nutrition and dietary manipulations. Health-related fitness, obesity and its management. Environmental and occupational hazards and first aid. Communicable diseases-their preventive and therapeutic aspect.

Characteristics and principles of sport training. Training load and periodization. Training methods and specific training programme for development of various motor qualities. Technical and Tactical preparation for sports. Short-term and long-term training plans.

Concept of test, measurement and evaluation. Principles of measurement and evaluation. Construction and classification of tests.

Criteria of test evaluation.

Concepts and assessment of physical fitness, motor fitness, motor ability and motor educability.