

## M. Phil. Physical Education – Semester -2nd

## Paper – III- Measurement, Evaluation and statistics in physical education

Max. Marks: 80

Time: 3 Hours

**Note:** - The candidates are required to attempt **five** questions in all. **Nine** questions will be set. **Question no. 1** (ten short questions of two marks each) will be **compulsory** and will be set from the entire syllabus. **Eight** questions will be set out of **4 units**, selecting **two** questions from each unit. The candidates are required to attempt **four** questions by selecting **one** question from each unit. Except **question no. 1** all questions carry equal marks.

**UNIT-I- Diagrammatic and Graphic Presentation of data**

- i. Rules for drawing diagrams and graphs.
- ii. Meaning of the Graphical presentation and its importance.
- iii. Preparation of Frequency Polygon.
- iv. Preparation of Histogram
- v. Preparation of cumulative frequency graph/curve.
- vi. Preparation of cumulative percentage curve or ogive.
- vii. Pie diagram.
- viii. Bar diagram.

**UNIT-II- Measures of Central Tendency Value and Dispersion.**

- i. Measures of Central tendency
- ii. Meaning and calculate of Mean, Median, and Mode.
- iii. Measures of dispersion
- iv. Meaning and calculate of Range, QD, MD, SD.

**UNIT-III- Normal Probability Curve, Skewness, Movement and Curtosis**


- ii. Normal Probability Curve and its Characteristics.
- iii. Test and Measures Skewness

**UNIT-IV- Co-relation and testing of Hypothesis**

- i. Meaning of co-efficient of co-relation, importance of coefficient of co-relation, calculation of coefficient of co-relation by Rank order method, Product moment methods and Scatter diagram.
- ii. Meaning of T-test, advantages and calculation.

**Reference:**

1. Fundamental Statistics in Psychology and Education, Guilford and Benjain in Fruchter, International Edition.
2. A Practical Approach to Measurement in Physical Education, Harold M. Barrow, P.E.D. ABD Rosemary Ms. Goc. Ph. And Febigr. Philadelphia, 1979.
3. Statistics in Psychology & Education, Henry E. David, Mckey Company, New York.
4. Statistical Methods, S.P. Gupta, Sultan Chand and Sons publisers, New Delhi.

  
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M.Phil- Semester-2nd  
Paper-IV(opt-i)- Sports Training

Max. Marks 80

Time: 3 Hours

**Note:-** The candidates are required to attempt five questions in all. Nine questions will be set. Question no. 1 (ten short questions of two marks each) will be compulsory and will be set from the entire syllabus. Eight questions will be set out of 4 units, selecting two questions from each unit. The candidates are required to attempt four questions by selecting one question from each unit. Except question no. 1 all questions carry equal marks.

UNIT-I

- i. Teaching, Training and Coaching : Meaning, aims & Characteristic & principles of training
- ii. Training Load: Meaning & characteristic of training load
- iii. Principles of Load & Adaptation, Judgment of Load
- iv. Over Load : Causes, Symptoms and tackling of over load.
- v. Sports performance

UNIT-II

- i. Strength : Meaning, Importance & types of Strength, Methods & Precautions of Strength training
- ii. Endurance: Meaning, Importance & types of Endurance  
Factors determining endurance, Methods of Endurance Training
- iii. Speed : Meaning, Importance & types of Speed, Factors Determining Speed, Methods of speed training
- iv. Flexibility: Meaning, Importance & types of flexibility, Factors Determining flexibility, Methods of flexibility development.
- ii. Co-ordinative Ability: Meaning, Importance & types of Co-ordinative ability, Factors determining Co-ordinative ability & Methods of development

UNIT-III

- i. Training Methods
  - (a) Weight training, Circuit training
  - (b) Continuous training, Interval training
  - (c) Fartlag training
- ii. Technical Training : Meaning, Importance of Methods of Technical training
- iii. Tactical Training : Meaning, Importance of Principles of Tactical training
- iv. Motor Development
- v. Talent identification

UNIT-IV

- i. Planning of training : Meaning of Planning, Importance, Principles of Planning of types of Training Plans.
- ii. Periodisation : Meaning and its types, contents for Various period of training, General Principles of training schedules.
- iii. Factor influencing the Performance in Sports
- iv. Control of sports training
- v. competition

REFERENCES BOOKS

- i. Dick, F.W., Sports Training Principles
- ii. Hardyal- Sports Training
- iii. Bunn J.W- Scientific Principles of coaching, Englewood cliffs prentice Hall
- iv. Brook, J.D. Whiting H.T.A.-Human Movement of field of study
- v. Shamsher Singh, An Introduction to Training and Coaching, Friends Publication, New Delhi, 2006.



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M. Phil. Physical Education – Semester -2nd  
Paper –IV- Opt.(ii) - Kin-anthropometry

Max. Marks: 50

Time: 3 hours

**Note:-** The candidates are required to attempt **five** questions in all. **Nine** questions will be set. **Question no. 1** (ten short questions of two marks each) will be **compulsory** and will be set from the entire syllabus. **Eight** questions will be set out of **4 units**, selecting **two** questions from each unit. The candidates are required to attempt **four** questions by selecting **one** question from each unit. Except **question no. 1** all questions carry equal marks.

**UNIT-I- Scope & Development**

- i) Meaning of Kin anthropometry
- ii) Scope and Development of Kin anthropometry
- iii) Methods of Measurements

**UNIT-II-Body Growth:**

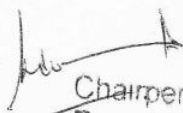
- i) Sports activity and Bone length
- ii) Sports activity and Stature
- iii) Activity and Physique
- iv) Physical activity and functional capacity

**UNIT-III- Human Physique: Application of Anthropometry in sports**

- i) Meaning & scope of Physique in sports
- ii) Heath and carter method
- iii) Classification of somototype
- iv) Applications: Physique in different sports size, shape and characteristics-
- v) Basketball, football and volleyball

**UNIT-IV-- Body composition and exercise**

- i) Meaning of body composition
- ii) Estimation of Body composition i.e. Body density, fat weight, fat percentage & lean body mass.
- iii) Skin-fold measurements and effects of training on body composition.
- iv) Matiegka's method of estimating body composition
- v) Dynamic changes in body composition
- vi) Body composition related to aerobic capacity

  
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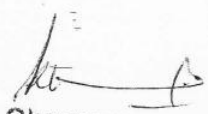
Max. Marks:-30

**Practical's:**

1. Study of skeleton
2. Anatomic of land marks i.e. vertex, tragion, acromion, dactylion, stylium, ulnare, infra- radiale, trachaniterion stylium radiale, acropodion, pternion, metacarpal radiale, metacarpal ulnare- Metatarsal tibulare, metatarsal fibulare, Itiocristale, Thelion
3. Equipments and their handling-skinfold caliper, steel tape, sliding caliper, stadiometer, weighing machine, sitting height table
4. Skin fold measurements-triceps, subscapular, abdomen, thigh, calf, biceps
5. Methods of anthropometric measurements-body mass, stature, sitting, height, biacromial breadth, anterior-posterior chest
6. Evaluation of somotype (health carter)

**Reference books:**

1. Keys A. and Brozek, G. Body Fat in Adultmen, *Physiol, Rev.* 33, 245, 1953
2. Siri, W.E. Body composition from fluid spaces and density, *Univ. cal. Donner lali med. Physics report* 19 March 1956
3. Parizkova, J. (1965) In "Body Composition" pergamon press Oxford pp. 161-176
4. Brodie, DA 1988. *Techniques of measurement of Body Composition, Sports Medicine*, S: 13 & 74
5. Carter, J.E.L. 1980. *The health carter somotype method, SDSU Syllabus service, sam diego*
6. Singh, S.P. and Malhotra P. 1989. *Kinanthropometry, Lunar Publications, Patiala*

  
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