Dr. B. R. Ambedkar University, Agra

(Formerly: Agra University, AGRA)



CURRICULUM FOR MASTERS OF PHYSICAL EDUCATION AND SPORTS (M.P.E.S.) PROGRAMME

TWO YEAR - (FOUR SEMESTERS)

ORDINANCE, REGULATIONS AND SYLLABUS FOR M.P.E.S. (CBCS)

Preamble:

Master of Physical Education and Sport (M.P.E.S.) two years (Four Semesters Choice Based Credit System) program is a professional program meant for preparing teachers of physical education at highereducation and professional jobs at university and sports industries.

M.P.E.S. program is designed to integrate the study of subject knowledge, pedagogical knowledge, and the aim of Physical Education and communication of games and sports skills. The program comprises of compulsory and optional theory as well as practical courses and compulsory internship.

A) M.P.E.S.

a. 1. Eligibility

I For Admission

- A) Candidate seeking admission to M.P.E.S. program must satisfy the following conditions.
- B) He/She must be B.P.Ed., B.P.E.S or B.Sc. (Health & Physical Education) from University
- C) He/She must have taken at least 55% marks in B.P.Ed,/B.P.E.S/B.Sc (Health & Physical Education) B.A. Physical Education as a Elite Subject Candidate belonging to scheduled cast scheduled tribe would be given concession of 5% marks in the minimum marks required for admission or eligibility criteria of Dr.B.R.Ambedkar University, Agra Admission ordinance.
- D) Admission shall be made on merit on the basis of marks obtained in the entrance test (written test, sports proficiency test, physical fitness test & marks obtained in the qualifying examination) or any other selection process as per the policy of University of Dr.B.R.Ambedkar University, Agra Admission ordinance.
- E) The provision of seats and the relaxation in qualifying marks for SC/ST/OBC and other categories shall be as per the rules of the central government/state government. Whichever is applicable.
- F) Graduation with 45% marks and at least three years of teaching experience (for deputed in service candidates i.e trained physical education teachers/coaches)
- II For the M.P.E.S. Degree: The candidates shall have subsequently undergone the prescribed course of study in the university department or a college affiliated to his University for a period of not less than two academic years, passed the examinations prescribed and fulfilled such conditions as have been prescribed there for M.P.E.S.

b.2. Duration:

The M.P.E.S. program shall be of duration of two academic years, that is, four semesters. However, the students shall be permitted to complete the program requirements within a maximum of three years from the date of admission.

3. The CBCS System:

All Programs shall run on Choice Based Credit System (CBCS). It is an instructional package developed to suit the need of students, to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

4. Course:

The term course usually refereed to, as 'papers' is a component of a program. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lecturer/tutorials/ laboratory work/fieldwork/Outreach activity (Educational Tours activities)/ project work/vocational training/viva/seminars/term papers/assignments/ presentations/self-study etc. or a combination of some of these.

5. Courses of Program:

The M.P.E.S. Program consists of a number of courses, the term 'Course' applied to indicate a logical part of subject matter of the Program and is invariably equivalent to the subject matter of a "paper" in the conventional sense. The following are the various categories of courses suggested for the M.P.E.S. Program.

6. Semesters:

An academic year is divided in to two semesters, each semester will consist of 17-20 weeks of academic work equivalent to 100 actual teaching days excluding examination days. The odd semester may be scheduled from June/July to December/January and even semester from December/January to June/July. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).

7. Working Day:

There shall be at least 200 working days per year exclusive of admission and examination processes etc.

8. Credits:

The term 'Credit' refers to a unity by which the program is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half/ two hours of practical work/field work per week. The term 'Credit' refers to the weight given to a course. Usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing a M.P.E.S. Program is 90 credits and for each semester 20 credits.

9. Examinations:

- i. There shall be examinations at the end of each semester, for first semester in the month of December/January: for second semester in the month of May/June. A Candidate who does not pass the examination in any Subjects shall be permitted to appear in such failed subjects in the subsequent examinations to be held in November/December or May/June.
- ii. A candidate should get enrolled/registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condition limit/rules prescribed OR belated joining OR on medical grounds, such candidates are not permitted to proceed to the next semester. Such candidates shall redo the semester in the subsequent term of the semester as a regular student; however, a student of first semester shall be admitted in the second semester, if he/she have successfully kept the term in first semester.

10. Conditions:

Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condition in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for condition in prescribed form with the

prescribed fee along with the Medical Certificate. Student who participate in sports competition affiliated by IOA shall apply be considered in examination with the permission of head of the department. Students who have below 50% of attendance are not eligible to appear for the examination.

11. Pattern of Question Papers:

Question Papers shall have five questions corresponding to four unit s of each theory course.

M.P.E.S.: Format of Questions Paper For 4 Units

Each question paper shall have five questions. The pattern will be as follows:

Question No.	Description	Marks
1	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 1)	15
2	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 2)	15
3	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 3)	15
4	Write short notes: any two out of four (Form Unit4)	15
5	M.C.Q. Type Questions (10 out of 12 Question) (3 Questions. from each unit)	10
	Total	70

12. Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous.

Internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidate at the end of course. The components for continuous internal assessment are;

One Test	15 Marks
Seminar/Quiz	5Marks
Assignments	5Marks
Attendance	5Marks
Total	30 Marks

Attendance shall be taken as a component of continuous assessment, although the students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also for man integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30:70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

13. Minimum Passing Standard:

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40%, i.e. 12 marks out of 30 marks and 28 marks out of 70 marks respectively for theory course. The minimum passing for both CIA & external examination shall be 50%, i.e. 15 marks out of 30 and 35 marks out of 70 Marks for the practical courses.

14. Award of the M, P.E.S. Degree:

A candidate shall be eligible for the award of the degree of the M.P.E.S. Only if he/she has earned the minimum required credit.

15. Assessment and Evaluations:

TOTAL MARKING SYSTEM

[SEMESTER	THRORETICAL	PRACTICAL	CREDITS
Semester – 1	400	200	24
Semester – 2	400	200	24
Semester – 3	400	200	24
Semester – 4	400	200	24
Total	1600	800	96

- I. Each course will be assessed on the basis of 100 marks. The marks would be divided between internal and external assessment.
- II. There shall be one end semester external examination for each course in every semester consisting of 70% (70 marks) weight in theory and 75% (75 marks) in practical courses.
- III. Each Theory course shall have internal assessment of 30% weight age on the

followingInternal written test - 15% (15 marks) Attendance - 05% (5 marks)

Class participation in assignments- 05% (5 marks) Presentations (Seminars) /quizzes etc. - 05% (5 marks)

Total 30 marks

IV. Each Practical Course shall have internal assessment of 50% weight age on the followingOne Test 15 marks Project 10 marks

Attendance 05 marks

Total 30 marks

- The University examination in Thesis for Semester IV shall consist of the examination of the thesis. One internal examiner shall evaluate the thesis out of maximum of 30 marks and one external examiner who shall evaluate the thesis out of maximum of 70 marks. There shall be a viva-voce at internal and external examination of 70 marks.
- V. Every student will be required to pass the external examination and internal assessment separately in each course.
- VI. The minimum passing standard will be 40% for the external and internal component of each theory course, i.e. 28 marks out of 70 and 12 marks out of 30. In practical minimum passing standard will be 50% for the external exam and internal assessment for each practical course.

VII. Attendance shall be taken as a component for continuous assessment, although the students should put in minimum of 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examinations of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester, examination is 30: 70 in theory &25: 50 in practical.

VIII. (A) The grades for each course would be decided on the basis of the percentage of marks obtained in the end-semester external and internal examinations as per the following table:

Percentage	Grade Point	Grade	Description	Classification of final result
85 & above	8.5-10.0	O +	Outstanding	
70-84.99	7.0-8.49	О	Excellent	First class with Distinction
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B+	Good	Higher Second Class
48-54.99	4.8-5.49	В	Fair	Second Class
36-47.99	3.6-4.79	C	Average	Pass Class
Below 36	0.0	D	Fail/Dropped	Dropped

IX. The semester grade point average (SGPA) will be calculated as a weighted average of all the grade point of the semester courses. That is Semester grade point average (SGPA) = (sum of grade points of all six courses of the semester) / total credit of the semester as per example given below:

Course No	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
Course -1	4	65	A	6.5	26
Course -2	4	60	A	6.0	24
Course -3	4	62	A	6.2	24.8
Course -4	4	57	B +	5.7	22.8
Course -5	4	55	B +	5.5	22
Course -6	4	72	0	7.2	28.2
Total	24				147.8

Examples: Conversion of marks into grade points

$$65=60+5=6.0+5 \times (0.99/9.99)=6.0+5 \times 0.1=6.0+0.5=6.5$$

 $57=55+2=5.5+2 \times (0.49/4.99)=5.5+2 \times 0.1=5.5+0.2=5.7$
 $72=70+2=7.0+2 \times (1.49/14.99)=7.0+2 \times 0.1=7.0+0.2=7.2$

X. SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit

Grade Points = 147.8 /24 = 6.16 SGPA Sem. I=

6.16 SGPA Sem. II = 5.63 SGPA Sem. III = 6.01 SGPA Sem. IV = 5.50

Total SGPA = 23.30

Cumulative Grade Point Average (CGPA) =23.30 4 = 5.82 CGPA = 5.82 Grade = B+ Class = Higher Second Class

GPA X 10 = Percentage e.g. 5.82 X 10 = 58.2 %

Note:

- (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.
- (2) CGPA is calculated only when the candidate passes in all the courses of all the semesters.
- XI. The cumulative grade point average will be calculated as the average of the SGPA of all the four semesters, as shown above.
- XII. Forth award of the class, CGPA shall be calculated on the basis of:
 - (a) Marks of End Semester External Examination And
 - (b) Total Marks obtained (Marks of End Semester External Examination
 - + Marks of Internal Assessment) for each course. The final Class for M.P.E.S. Degree shall be awarded on the basis of lowest CGPA (marks) of (a) & (b) of one to fourth semester examinations.

16. Conferment of the M.P.E.S. Degree:

(i) A candidate shall be eligible for the conferment of the Degree of M.P.E.S. only if he/she has earned the minimum required credits for the program prescribed therefore (i.e. 96 Credits).

17. End Semester Examination:

(i) The University shall conduct the external Examination for the Semester-I, II, III & IV. The internal examination shall be conducted by the concerned Departments.

M.P.E.S. Semester-1

Part A: Theoretical papers

Examination Evaluation

Course code	Title of papers	Credit	Internal marks	External marks	Total marks
сс-101	Research methods in physical education	4	30	70	100
cc-102	Health education	4	30	70	100
cc-103	Information technology in physical education and sports	4	30	70	100
сс-104	Elective course(any one) sports journalism/ sports sociology	4	30	70	100

Part -B Practical course

Course code	Title of papers	Credit	Internal marks	External marks	Total marks
Pc-101	Athletics (running events)	4	30	70	100
Pc -102	Kho kho, football, hockey basketball, badminton kabaddi (anyone out o these) sports theory, skills techniques and officiating		30	70	100
	Total	24	180	420	600

M.P.E.S. Semester-IInd

Part A: Theoretical papers

Examination Evaluation

Course code	Title of papers	Credit	Internal marks	External marks	Total marks
сс-201	Statistics in physical education and sports	4	30	70	100
сс-202	Sports psychology	4	30	70	100
сс-203	Exercise physiology	4	30	70	100
сс-204	Elective course(any one) principal and organization of recreation/ professional preparation and curriculum design	4	30	70	100

Part –B Practical course

Pc-201	Athletics (jumping events)	4	30	70	100
Pc -202	Table tennis handball, cricket, boxing, judo (anyone out of these) sports theory, skills, techniques and officiating		30	70	100
	Total	24	180	420	600

M.P.E.S. Semester-IIIrd

Part A: Theoretical papers

Examination Evaluation

Course code	Title of papers	Credit	Internal marks	External marks	Total marks
cc-301	Bio -mechanics	4	30	70	100
cc-302	Sports management	4	30	70	100
cc-303	Test measurement and evaluation in physical education and sports		30	70	100
cc-304	Elective course(any one physical fitness and wellness/ gender disability and inclusive sports education		30	70	100

Part -B Practical course

Pc-301	Athletics (throwing events)	4	30	70	100
	Volleyball, wrestling, lawn tennis ,tae Kwando (anyone out of these sports theory, skills techniques and officiating		30	70	100
	Total	24	180	420	600

M.P.E.S. Semester-IV

Part A: Theoretical papers

Examination Evaluation

Course code	Title of papers	Credit	Internal marks	External marks	Total marks
cc-401	Scientific principal of sports training and coaching	4	30	70	100
сс-402	Sports medicine	4	30	70	100
сс-403	Yogic science and naturopathy	4	30	70	100
сс-404	Elective course(any one philosophical foundation and history of physical education and sports dissertation		30	70	100

Part -B Practical course

Pc-401	Lesson plan of specialization	4	30	70	100
Pc-402	Classroom teaching	4	30	70	100
	Total	24	180	420	600

Semester - I

Paper - 1

Research Methods in Physical Education& Sports

Unit 1.

• Meaning, Definition, Nature, Importance and Scope of Research in Physical Education & Sports.

Unit 2.

- Meaning, Definition and Selection of Research Problem.
- Hypothesis and Review of Related literature, Library Techniques.

Unit 3.

- Sampling-Meaning, Definition, Types and importance.
- Sampling-Process and Techniques
- Research Tools-Questionnaire, Interview, Opinion ireetc.

Unit 4.

- Research Methods and Procedure.
- Historical Research-Meaning, Definition and Importance, Primary and Secondary Sources, External and Internal Criticism.
- Descriptive Research-Survey Studies(Meaning, Definition and Importance)
- Case Studies.
- Experimental Research- Meaning, Definition, Need and Experimental Designs and Laboratory Designs.

Unit 5.

- Research Proposal
- Research Report
- Preparation of a Research Report.

References:

- 1. Author's Guide: "Research Methods Applied to Health Physical Education and Recreation", Washington, D.C., 1991.
- 2. Best J.W., "Research in Education", Prentice Hall, New Delhi 1982.
- 3. Clarke H. David, "Research Processes in Physical Education, Recreation and Health", Prentice HallInc, Englewood Cliffs, New Jersey, 1985.
- 4. Kamlesh M.L., "Methodology of Research in Physical Education and Recreation", AHPER, Washington D.C., 1973.

Semester - I

Paper - 2

Health Education

Unit 1.

- Health-Guiding Principles of Health and Health Education.
- Health related fitness.
- Obesity and its Management.

Unit 2.

- Environmental and Professional Hazards and First Aid.
- Public Health and Epidemic Diseases-Symptoms, Treatment and Preventive Measures.
- Communicable Diseases-Symptoms, Treatment and Preventive Measures.

Unit 3.

• School Health Program and Personal Hygiene.

Unit 4.

- Theories and Principles of Recreation
- Recreation programs for various categories of people.

Unit 5.

- Population Education
- Causes for population explosion and its preventive steps.
- National family welfare scheme.
- Nutrition and Dietary manipulation.

References:

- 1. Greene, W.H., Simon-Morton, B.G.(1984). Introduction to Health Education. NY: Macmillan Publishing Company
- Anspaugh, D.J., Ezell, G. (1995). Teaching today's health (4th Ed). Boston: Allyn & Bacon Park, K. (2007). Park's textbook of Preventive & social medicine (19th Ed). India: Varanasi das Bhanot Publishers.
- 3. Y.P. Bedi: Hand Book of Hygiene and Public Health.
- 4. Ma Curdy and Ma Grace: Muscular Exercise.
- 5. Peter V.Karpovich: Physiology of Muscular Activity.
- 6. Anatomy, Physiology, Kinesiology & Health Education : Dr. Ramesh Chand Kanwar

Semester - I

PAPER -3 Information Technology in Physical Education.

Unit 1.

Local Area Network and Internet

A. Networking

- Area and Classification
- Features and characteristics of LAN, Need of Network and its importance.
- LAN Topology-Ring, Star, Bus, Pitcher, Two Pitcher
- LAN, Survey, Work Station, Connection, Cable.

B. Internet

- Meaning, History, Application and Address.
- Introduction of Modem, Web client, Web Server.
- Dial up, Access, Direct Access.
- Introduction of Web browser, Use of Web browser (For Sports and Games)
- Introduction of Search engine, Uses, Objectives and types.
- Meaning and Definition of Firewall and Gateway.

C. Email

• Introduction, How to receive and send, how it works and Address book etc.

Unit 2.

Web Designing

- Introduction.
- Web browser and Programming.
- Program structure, Pair, Tag, Document, Head and Body Tag.
- Leaking Documents, Internal and External Documents.
- Heading Line, Drawing Line.
- Paragraph break- Font Styles (Bold, Italic and Underline)
- Types of Lists-Order and Unordered.

- Graphics, Images, Sound and Video.
- Tools, Header, Dia, Row, use of Caption Tag Width, Border, Working, Spacing, Bg Colour Column and Row. Spy Alignment (Column etc.)
- Form-Introduction, Design, Creation.
- Check box, Control Text box, Drop down, List box, Command and action button.

Unit 3.

- Multimedia and Presentation package.
- Fundamentals and application of multimedia.
- Tools of multimedia(Sports)
- Introduction of graphics, animation and morphing.
- Sound and Music

Unit:4

Presentation package

• Introduction, General Objectives, Tips on effective presentation, Opening, Creative presentation, Creative table, Making chart, Save and close, New slide, Slide change, Creation of black presentation, Changing font size, Working with graphic action button.

Unit 5.

Organizing various sports activities using Microsoft projects.

• Lab work: Introduction to sports software, Introduction to internet, Study of Email, Browsing sports activities on Internet, Preparing Slideshow on power-point, Preparing Slideshow on Multimedia, Teaching Multimedia package, Web Design.

References:

- 1. Irtegov, D. Operating System Fundamentals. Firewall Media. 2004.
- 2. Milke, M Absolute Beginner's Guide to Computer Basics, Pearson Education Asia2007.
- 3. NIITBasicsofNetworkingPrentice-HallofIndiaPvt.Ltd,2004
- 4. Computers Today. Suresh K. Basandra, Galgotia publication, upgradededition-2008
- 5. Computers in Your Future, Marilyn Meyer & Roberta Baber, 2nd edition, Prentice HallIndia
- 6. Computer Fundamentals. Pradeep K. Sinha & Priti Sinha, 4th edition, BPB Publication

SEMESTER I

Paper – **4.2**

(Elective) Sports Journalism

Unit 1. Development of Journalism in India:

- Publication of newspapers in India
- Press, Literature, Renaissance.
- Group Mediums, Newspapers, Magazines, Television, Radio, Internet-Symptoms, Advantages and disadvantages.
- Importance of Sports Journalism.
- Language skill writing and Editing.
- Selection of Headers and Footers, Pictures, Layout, Design, Cartoon, Graphics, Graphs.

Unit 2. Qualities of Sports Journalist and Consolidation of news:

A. Qualities

- Knowledge of the game, Specialist in Sports.
- Research Attitude
- Individual Preparation and Cooperation.
- Specialization in Public Relations.
- Knowledge of the laws of the games.
- Urge for new knowledge.

B. Consolidation of News through,

- Individual sources,
- Commercial agencies,
- Newspaper listings,
- Meetings and seminars,
- Radio and television,
- Internet.

Unit 3. Difference between compilation of newspapers and magazines:

- Difference between newspapers and magazines
- Difference between writing styles
- Difference between presentations.
- Difference between selections of newspapers.
- Special skills.
- Selection of Pictures. Intro writing
- Intro writing of contemporary event or incident.
- Offhand comment on special occasions.

Unit 4. Sports administration and management:

- Level of Authorities: Different sports Associations, Universities, Colleges, schools etc.
- Level of Invitee/Non official: Association, Mandals, Clubs, Corporation, Social institutions, Society etc.

Unit 5. Welfare schemes:

- Awards to sportsmen: Arjun, Padmashree, Khelratna, Eklavya etc.
- Priority in Government jobs.
- Prizes and consolations for excellent performance.
- Benefit matches.
- Priority for additional marks for college admissions.

References:

- 1. Ahuja, B.N., Theory and Practice of Journalism, Surject Pub, Delhi, 1988.
- 2. Health Jr. Gelfand, How to Cover, Write and Edit Sports, Annes Lowa, USA, 1951.
- 3. Juris, John R., The Writing Games, Columbia Univ. Press, New York, 1969.
- 4. Nea. Robest, News Gathering and News Writing, Columbia HallInc, New York, 1949.
- 5. "Sports" by Bhola Singh Thakur (pp.111.1240) in the Indian Reporter Guide by Richard Richfield. Allied Pacific Pvt. Ltd., Bombay, 1962.
- 6. Woodward. S., Sports Page, Simon and Schuster, New York.1949.

Semester - I

Paper – 4.2

Sports Sociology (Elective)

Unit 1 Earning, Scope, Methods and Use.

- A. Sociological Classification of Sports.
 - Sociological concept and classification.
 - Sports Research
 - Concept and understanding of Sports.

Unit 2 Sports group and Administration:

- A. Group Leadership, Constitution Methodology.
- B. Administrative Leadership, Constitution, Methodology.

Unit 3. Games and Social Institutions:

- Contribution of Family
- Educational Methods in Sports
- Contribution of socialization in sports.
- Socialization through sports

Unit 4. Sports and Social Status

- Sports Socialization and Limitations
- Sports related problems and Trends in Society.
- Sports and Aggression.
- Violence in sports.
- Commercialization in sports
- Women and Children in sports.

Unit 5. Sports and Micro Social System

- Study of Sports Groups
- Group Interaction, Competition and Co-operation
- Sports and Culture

REFERENCE:

- 1. Loy, John W., Kenyon, gerald S. & McPherson, Barry D. Sports Culture and Society (Philadelphia: Lea & Febiger, 1981).
- 2. Ball, Donald W. and Loy John W. Sport and social Order; Contribution to the sociology of sport, (London: Addison Wesley Publishing Co., Inc., 1975).
- 3. Loy John. W. McPherson, Barry D., and Kenyon Gerald, sport and Social System (London: Addison Wesley Publishing Company Inc.,1978).
- 4. Edward Larry. Sociology of sport (Illinois: The Dorsey Press,1973).
- 5. Cratty, Brayant J. Social Dimensions of Physical Activity New Jersey: Englewood Cliffs, Prentice Hall Inc., 1967.

Semester - II

Paper – 1

Statistics in Physical Education& Sports

Unit 1. Statistics: Meaning, Definition, Nature and Importance.

- Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables and Calculation.
- Graphical Presentation of Class Distribution, Histogram, Frequency Polygon, Frequency Curve. Cumulative Frequency Polygon, Ogive, Pie Diagram.
- Measures of Central Tendency: Mean Median and Mode- Meaning, Definition, Importance, Advantages and Disadvantages.
- Calculation of Mean and Median, Grouped and Ungrouped data, Raw Mode and calculation of mode from class intervals.

Unit 2. Measures of Variability

- Deviation, Percentiles and Quartiles-Meaning and Use.
- Calculation of Deviation Percentiles and Quartiles.
- Range, Quartile Deviation, Mean/Average Deviation, Standard Deviation-Meaning, Definition and use.
- Calculation of Quartile, Mean and Standard Deviation from Grouped and Ungrouped data.

Unit 3. Correlation:

- Meaning and Types.
- Calculation of Karl Pearson (Product Moment Method) and Spearman-Rank Order Correlation Method.

Unit 4. The Normal Curve:

- Meaning, Principles, Laws, Properties and Uses.
- Divergence from Normality-Skewness and Kurtosis.
- Scoring Scales- Sigma scale, Z Scale, T Scale.

Unit 5: Reliability

- Meaning, Factors affecting Reliability.
- Randomization.

- Significance of difference between Means.
- T-test and F-test- Uses, Meaning.
- Calculation of T-test.
- Type I and Type II Errors.
- One Tailed and Two Tailed Tests.
- Null Hypothesis.

REFERENCE:

- 1. Best, john W. Research in Education, New Delhi Prentice Hall of India (P) Ltd. 1963.
- 2. Clarke David H. and Clarke H. Harrison, research Process in Physical Education, Recreation and Health, Englewood Cliffs, New Jersey Prentice Hall Inc. 1979.
- 3. Clarke H. Harrison, the Application of Measurement in Healand Physical Education New York, Prentice Hall Inc. 1979.
- 4. Good V. Caster and Scates Douglas E., Methods of research Application Century, New York, 1954.
- 5. Mauly George J., The Science of Educational Research, New Delhi Eurasia Publishing Hours (P), 1963.
- 6. Robson M, Brar T.S. and Uppal A.K., Thesis format, Gwalior, LNCPE, 1979.
- 7. Bolnmera Paul and Lindquist, EF, Statistical Methods in Psychology and Education, Calcutta: Oxford Book Co.
- 8. Garret, Harry E and Good Worth R.S., Statistics Psychology and Education, Bombay Allied pacific Private Ltd.19.
- 9. Sukhia S.P., Mehrotra P.V. and Mefrotra R.N., Elements of Educational Research (Hindi), Agra Vinod Bood Publisher, 1984.
- 10. Guilford J.P., fundamental of Statistics in Psychology Educational, New York: McGraw Hill Book Cp. Inc.1956.

Semester - II

Paper – 6

Sports Psychology

Unit 1. Sports Psychology:

Meaning, Definition, Nature, Scope and Importance.

Unit 2. Process of Learning: Meaning, Definition, Principles, Laws and their implementation.

- Individual Differences: Meaning, Definition, Types and Reasons.
- Body Types: Sports Activity according to body types, Effect of Individual differences on skill acquisition and sports performance.

Unit 3.

- Emotion: Meaning, Definition, Types and Characteristics. Factors effecting Sports Achievement such as Stress, Fear, Frustration and Aggression.
- Motivation: Meaning, Definition, Types and Importance of Motivation in Sports Achievement.

Unit 4.

- Personality: Meaning, Definition and Principles.
- Dimensions of Personality, Views of Personality.
- Personality development through Physical Activities and Games.

Unit 5.

- Psychological Dimension of Competition-Psycho-Regulative Method for Excitement and Mental Relaxation.
- Effect of Audience on the performance of the Athletes.
- Psychological Preparation for competition-Short term and Long Term Preparation.

REFERENCE:

- 1. Alderman, R.B. *Psychological Behaviour in sports*. (Philadelphia: London, Sounders Company,1974).
- 2. But Susan Dorcas, *Psychology of Sports* (Network: Van Nastrand Reinhold Company) Edn.2.
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- 11. Robert Glyn C. *Learning Experiences in sports Psychology*. (Illinois: Human Kinetics Publisher Inc.1986).
- 12. Martens Rainer, *Coaching Guide to Sports Psychology* (Illinois: Human Kinetics Publisher Inc.1987).
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- 14. Gill Dianel: Ssychological dynamics of sports (Illinois: Human Kinetics publisher Inc. 1987).

Semester - II

Paper – 7

Exercise Physiology

Unit 1.

Exercise Physiology: Meaning, Definition, Importance and Scope.

Unit 2. Muscles, Types of Muscles and Types of muscular cells:

- Characteristics of Voluntary and Non voluntary Muscles.
- Design, Functions and Energy for Muscular Function
- Chemical Changes during muscular contraction.

Unit 3.

Structure and functions of different systems of the body and effect of exercise on various systems.
 (Muscular System, Cardio-vascular System, Respiratory system, Nervous System and Digestive System)

Unit 4.

- Second Wind and Oxygen Debt.
- Warm up, Conditioning, Fatigue and (Prasham).
- Work Capacity under different environmental conditions.(Hot, Humid, Cold, High and Low Altitude)

Unit 5

- Sports and Nutrition.
- Concept of Balanced Diet.
- Pre Competition, During Competition and after competition diet of sportsman.
- Effect of smoking, Alcohol, Banned drugs on Sports Performance.

REFERENCE:

- 1. Guyton, Arthur C. Text Book of medical physiology. (Philadelphia: W.B. Saunder company, 1976).
- 2. Morehouse, L.E. and Miller, A.T. physiology of Exercise. (Saint Louis: The C. V. Mosby Company, 1976).
- 3. Karpovich, P.V. and Sinning, Wayne E. Physiology of muscular Activity (Philadelphia: W.B. Sauders Company, 1971). 7thEd.
- 4. Bourne, Geoffery H. The Structure and Function of Muscles: (London Academic Press1973). Astrand, P.O. and Rodahi. Karri. Text Book of work Physiology. (Tokyo McGraw Hill kogakusha, Ltd. 1979). Mathew, D.K. and Fox, E.L. Physiology Basis of Physical Education and Athletics (Philadelphia: W.B. Saunders Company, 1976).

Semester - II

Paper - 8.1

Principles and Organization of Recreation (Elective)

Unit 1. Concept of Recreation:

- Definition, Theory, Methodology and games.
- Concept of Recreation and Philosophy. Effect of Schools on different philosophies.
- Work, Relaxation and Recreation.
- Importance of recreation for Individual, Groups, Society, National and International brotherhood, Nature of Recreation activities.

Unit 2. History of Recreation:

- History of different activities and living styles of various civilizations, Momentum to different recreational activities, History of Vedic age, Epic age, Buddha age, Maurya age, British period, India after independence.
- Activities of villages and sources of recreation.

Unit 3.

- Planned momentum for recreational activities in India. Professor, C.D. Sondhi, Effect of Recreation
 on educational and industrial institutions, Y.M.C.A, Balkaan ji baati, Service and Ospel Club,
 Balabhavans, India Nation Association, National and International Associations.
- Comparative study of recreation-Agitation of Recreation in U.K, U.S.A, U.S.S.R, Japan, France and Germany and its effect on India.
- Recreational Schemes of State and National Government

Unit 4. Factors effecting Recreation

- Factors effecting population explosion, age, tribes and social status.
- Types of communities, urban, semi urban, rural, slums and business.
- Tools giving momentum to recreation and recreational institutions. Facilities for training.
- Effect of religions, tribes, knowledge and rituals.

Unit 5. Planning and Management.

- Survey of sources and needs.
- Preparing aims and objectives, managing programmes, managing funds.
- Place of training in recreational skills.
- Purchase, preservation and distribution of recreational tools.
- Establishment of evaluation methods.

References:

- 1. Dheer. S. & Radhika Kamal, Organization and Administration of Physical Education, Friends Publication, New Delhi 1991.
- 2. Two Experienced Professors, Organization, Administration and Recreation in Physical Education, Parkash brothers, Educational Publishers, Ludhiana 1986.
- 3. Butler G.O. introduction to "Community Recreation" Newyork Mc Graw-hill Co. Inc.1959 Dollar8.50.
- 4. H.D. Meyer and C.K. Bright bill community Recreation', A guide to its organization. NewZercy,1964.
- 5. "A Recreation". Professor Shri C.H. Dubey L.N.C.P.E. Gwalior.(M.P.)

Semester - II

Paper - 8.2

Professional Preparation and Curriculum Design (Elective)

Unit 1. Foundation of Professional Preparation:

- Ideals of Indian Democracy: Contribution of Physical Education.
- Forces and factors effecting educational policies- Social, Religious, Economical and political.
- Educational and professional preparation in physical education Role of Central government.
- Professional Association. Professional Preparation in Physical Education:
- Historical review of professional preparation of Physical Education in India.
- Curriculum-Old and new concepts, Mechanics of curriculum planning.
- Basic principles of curriculum construction.

Unit 2. Under-graduate preparation of professional preparation

- Areas of Health education, Physical education and Recreation.
- Curriculum design-Experience of Education, Field and Laboratory.
- Teaching practice.
- Professional Competencies to be developed-Facilities and special resources for library, laboratory and other facilities.

Unit 3. Post-graduate preparation of professional preparation:

- Purpose of Post graduate studies.
- Area of specialization and concentration on core areas.
- Research requirements and methods of instructions.

Unit 4. Curriculum Design:

- Importance of curriculum design and effecting factors, Curriculum according to the needs of the students, national and professional policies.
- Role of teachers in curriculum design.
- Co-education and special programmes for women.

Unit 5.

- Selection of Teaching Method Mass Education, Lecture, Project method and teaching aids.
- Time table for Physical Education and Sports activities in schools and classes.
- Supervision in Physical Education and Supervision methods.
- Recommendations for physical education curriculum by NCERT, CBSE, UGC, NCTE.

REFERENCE:

- 1. Brraw Harold M. Man and Movement: Principles of Physical Education, Philadelphia: Kea and febiger 1983.
- 2. Bucher, Charles A. Foundation of Physical Education St. Louis: The C.Va Mosby & Company, 1986.
- 3. Cassidy, r. Curriculum Development in Physical Education, New York: Harper & Company, 1986.
- 4. Cowell, C.C. and Hazelton H.W. Curriculum Designs in Physical Education, Englewood Cliffs; N.J. Prentice Hall Inc. 1965.
- 5. Irwin: L.W. Curriculum in Health and Physical Education, Iowa: W.M.C. Brown Co.
- 6. Larson, L.A. Curriculum foundation in Physical Education, Englewood Cliffs; N.J. Prentice Hall Inc.
- 7. National Plan of Physical Education in Recreation, Ministry of Education, Govt. of India, 1956.
- 8. Pape. L.A. and Means, L.E.A. Professional Career in physical Education, Englewood, Cliffs, N.J. Prentice Hall, Inc.1952.
- 9. Reports of Various committees in Education and Physical Education and Physical Education, Govt. of India
- 10. Underwood, Gordon, L. The Physical Education Curriculum in Secondary School: Planning and Implementation England: Taylor and Francis Ltd. 1983.
- 11. Will goose, C.E. Curriculum in Physical Education 3rd Ed. Englewood Cliffs., N.J. Prentice Hall, Inc. 1979

Semester - III

Paper -9

Bio-Mechanics

Unit 1.

- Biomechanics and Kinesiology: Meaning, Nature and Importance.
- Principles of plane and axis. Various types of movements.

Unit 2. Kinetics and Kinematics

- Motion: Linear motion, Rotary motion, Angular Motion, Curvilinear motion, Motion of transition.
- Balance, Newton's Laws of Motion, Acceleration, Velocity and speed.
- Force, Work, Power and Energy, Weight and Projectile.
- Leverage-Principles and Types.

Unit 3.

- Friction-Resistance, Water and Air Resistance.
- Elasticity.
- Spin
- Centrifugal and centripetal force.

Unit 4.

• Mechanical Analysis of Motor Movements-Walking, Jumping, Running, Throwing, Catching, Holding, Climbing, Lifting, Swinging, Gliding, Pulling.

Unit 5. Mechanical Analysis of Sports Skills

- Athletics(Running, Jumping, Throwing)
- Swimming.
- Football.
- Basketball
- Volleyball.
- Cricket.

REFERENCE:

- 1. Bunn, Hohn W. Scientific Principles of Coaching (Englewood Cliffs, N.J.: Prentice Hall Inc., 1972).
- 2. Simonian Charles, Fundamentals of Sport Biomechanics (Englewood Cliffs, n.J.: Prentice Hall Inc.,1911).
- 3. Hay, James, G. The Biomechanics of Sports Techniques. (Englewood Cliffs, N.J.: Prentice Hall, Inc.,1970).
- 4. Broer, M. Roin R.and Zernicke, R. Ronald F.Efficiency of Human Movement (Philadelphia: W.E. Saunder Co., 1979).
- 5. Hay, James G. and Reid J. Gavind, The Anatomical and Mechanical Basis of Human Motion(EnglewoodCliffs, N.J.:prenticeHallInc., 1982).
- 6. Hay, James G. and Reid J. Gavind, Hay, Anatomy, Mechanics and human Motion(EnglewoodCliffs,N.J.:prenticeHallInc.,1988).

Semester - III

Paper - 10

Sports Management

Unit 1.

• Sports Management-Meaning, Definition, Importance, Principles and functions.

Unit 2. Administration-Meaning, Types.

- Administration of education department and its functions.
 - a. School Games Federation of India.
 - b. State Education Sports Wing-School Administration.
 - c. Association of Indian Universities.
 - d. University department of Physical Education.
 - e. College Physical Education Department, Administration of non teaching department and its functions.
 - f. Youth and Sports department
 - g. SAI
 - h. Indian Olympic Association, Indian Sports Associations.
 - i. State Sports Department

Unit 3. Administration of Sports Facilities, Equipment's, Funds and Employees.

- Facilities: Administration, Types, Need, Purchase of Equipment's, Preparation of fields and maintenance, Indoor Facilities (Gym, Swimming pool).
- Equipment's: Importance, Types, Purchase, Maintenance, Stock maintenance and disposal.
- Funds: Objective of Budget, Principles of budget preparation, ideal budget, its uses.
- Employees Administration: Leadership, Principles, Need, Teacher's training improvement program.

Unit 4. Planning and supervision in Physical Education.

- Principles of Lesson planning.
- Supervision-Definition, Nature, Scope, Principles, Duties of a supervisor, Qualities of a supervisor, Method and effective supervision.

Unit 5. Public Relations

- Definition, Objectives and Need.
- Principles
- Planning and administration of program of public relations.
- Mediums and agencies.
- Steps for effective and qualitative public relations.

REFERENCES:

- 1. Earl F. Zeigh & Gary W. Bowie. Management Competency Development in Sports and Physical Education., (Philadelphia: W. Lea and Febiger, 1963).
- 2. Joseph Bucher and Earnest Kienige burg, Scientific Inventory Management (New Delhi: Prentice Hall of India Pvt. Ltd.,1968).
- 3. Ashton D. Administration of Physical Education for Women (NewYork:The Ronal Press Cl,1968).
- 4. Bucher C.A. Administrate on of Physical Education and Athletic Program(St. Louis: The C.V. Mosby Co., 1979),7th Edition.
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- 6. Ferry the C.E. and Duncan R.C. Administration of Physical Education (New York: Prentice Hall Inc.1951).

Semester - III

Paper - 11

Test, Measurement and Evaluation in Physical Education & Sports

Unit 1.

- Test, Measurement and Evaluation-Meaning, Definition and Importance. Modern Trends in Measurement and Evaluation.
- Test Evaluation-Criteria of Test Selection, Objectivity, Reliability, Norms of Validity.
 - a. Classification of tests-Standardized tests, Teacher made tests, Subjective and objective tests.
 - b. Construction of knowledge and skill tests.
 - c. Steps in construction of knowledge and skill tests.

Unit 2.

- A. Physical Fitness and Motor Fitness Tests.
 - AAHPER Youth Fitness Test.
 - National Physical Fitness Test.
 - Indiana Motor Fitness Test.
 - Philip's JCR Test.
- B. Common Motor Strength Tests.
 - Baroni –Common Motor Strength test.
 - Newton Motor Strength test.
 - Cozen's athletic ability test.
 - Mc.Cloy's General motor ability test.
- C. Cardio vascular and Respiratory Tests.
 - Harvard Step Test.
 - Cooper's 12 min continuous run/walk test.
 - Kraus-Weber strength test.
 - Roger strength test.

Unit 3. Sports Skill tests: Need and Use.

- Badminton-Lockhart and McPherson Badminton skill test, Miller wall Volley test.
- Basketball-Johnson Basketball skill test, Beach Basketball skill test.

- Hockey-Harvan singh Hockey Test.
- Tennis-Dyer Tennis skill test, Hewitt Tennis skill test.
- Volleyball-Russell Lange test, Brady Volleyball Skill Test.
- Football-Mcdonald Football skill test, SAI Football skill test.

Unit 4. Socio and Psychological Tests.

- Mc.Cloys behavior rating scale.
- Cowell social behavior trend index.
- Peterson's Social capacity test.
- Swakhyal test.

Unit 5.

Anthropometric measurements.

- Equipments.
- Body Fat measurement, General body measurements.
- Body composition measurements.

- 1. ACSM's Health / Fitness Facility Standards and Guidelines, New York: HumanKinetics, 1992.
- 2. Barrow, Harold M. and McGhee, "Rosemary, A Practical Approach to Management in Physical Education" Philadelphia: Lea and Febiger 1979.
- 3. Clake, H. Harrison.: Application of Measurement to Health and Physical Education, New Jersey: Prentice Hall Inc.1976.
- 4. Edmund O. Acevedo and Michael A. Starks, Exercise Testing and Prescription labManual, USA: Human Kinetics Publishers, 2003.
- 5. Safrit, Margaret J.: Introduction to Measurement in Physical Education and Exercise Science, St. Louis: Mosby, 1995.

Semester - III

Paper - 12.1

Physical Fitness and Wellness. (Elective)

Unit 1. Meaning & Definition of Physical Fitness, Importance & Advantage of Physical Fitness.

- Concept of Fitness
- Health Related Fitness
- Skill Related Fitness

Unit 2.

- Principles of Exercises.
- Model Program
- Importance of gymnasium and health-clubs.
- Exercise guidance program for Children, youth and special age groups.
- Construction of appropriate exercise program.

Unit 3. Physical Fitness activities:

- Aerobics
- Water exercises.
- Neurological training.
- Agility and equilibrium training.
- Isometric training.
- Cycling.
- Ladder climbing.
- Treadmill.
- Walking
- Health advantages.

Unit 4.

- Planning for lifelong fitness program, Aims of fitness, Encouragement for health and prevention of diseases, Domestic exercise equipment's, Fitness program for handicapped and mentally retarded children, Exercise for adults.
- Management in physical fitness and stress, Concept of stress, Effect of exercises in stress

management, Time management.

Unit 5. Meaning and Definition of Wellness

- Components of Wellness
- Contribution of Behavior in Wellness
- Advantage of Wellness

- 1. Anderson, B., Stretch Yourself for Health & Fitness, Delhi: UBSPD,2002.
- 2. Austin and Noble, Swimming For Fitness, Madras: All India Pub.,1997.
- 3. Bean, Anita, Food For Fitness, London: A&CBlock, 1999.
- 4. Callno Flood, D.K., Practical Math For Health Fitness, New Delhi, 1996.
- 5. Cox, Corbin, C.B & Indsey, R., Concepts of Physical Fitness, WC Brown, 1994.
- 6. Difiore, Judy, Complete Guide to Postnatal Fitness, London : A & C Black, 1998.
- 7. Giam, C.K & The, K.C., Sport Medicine Exercise and Fitness, Singapore: P.G. Medical Book, 1994.
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- 9. Harrison, J.C., Hooked on Fitness, NY: Parker Pub. Com., 1993.
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- 11. Kirtani, Reema, Physical Fitness, Delhi: Khel Sahitya, 1998.
- 12. Maud, J.R. and Foster, C., Physiology Assessment of Human Fitness, New Delhi,
- 13. Mcglynn, G., Dynamics of Fitness, Madison: W.C.B Brown, 1993.
- 14. Muller, J. P., Health, Exercise and Fitness Delhi: Sports, 2000.
- 15. Muller, J.P., Health Exercise and Fitness, Delhi: Sports, 2003.
- 16. Saggar, S.K., Physical Fitness, New Delhi: Rupa Co., 1994.
- 17. Sharkey, B.J., Physiology of Fitness, Human Kinetics Book, 1990.
- 18. Thani, Lokesh, Rules of Games and Games and Fitness, Delhi: Sports, 2003.

Semester - III

Paper – 12.2 (Elective)

Gender, Disability & Inclusive Sport Education

Unit 1

- Defining Gender and features of gender inequality
- Gender inequality in Education in India
- Gender based violence as a development and rights challenge

Unit 2

- Historical roots of gender construction in India –patriarchy and its socio- cultural origins
- Impact of gender as a social construct.
- Gender roles and the female stereotype in India
- The Global Gender Equality Agenda

Unit 3

- Gender issues in access to education & physical education
- Quality of work and equal opportunity
- Gender in the physical education classroom and peer interactions
- Gender issues in participation in sports

Unit 4

- Constitutional provisions for education of women in India
- UEE and programs for education of women in India
- Gender and policy perspective
- Class and Inequality

Unit 5

- Definition, concept and importance of inclusive education.
- Historical perspectives on education of children with diverse needs.
- Difference between special education, integrated education and inclusive education.
- Advantages of inclusive sports education for all children.

- Educational approaches and measures for meeting the diverse needs
- Building inclusive learning friendly sports facilities, overcoming barriers for inclusion.
- Creating and sustaining inclusive practices.
- Role of teachers, parents and other community members for supporting inclusion of children with diverse needs for participation in sports.

- 1. Chanana Karuna (ed) Socialization, Education and Women, Orient Longman, New Delhi,1988
- 2. Mandell, Nancy (ed), Feminist Issues: Race, Class and Sexuality, Prentice Hall, Ontario, 1995
- 3. Nambissan, Geeta B, Gender and Education: The Social Context of schooling Girl Children in India, 1995.
- 4. Erik Olin Wright, "From Paradigm Battles to Pragmatist Realism: toward saninte grated class analysis", New Left Review (forthcoming)
- 5. Daryl Glaser, "Class as a Normative Category: Egalitarian Reasons to Take It Seriously (With a South African Case Study)
- 6. Daryl Glaser, 'Should An Egalitarian Support Black Economic Empowerment?', Politikon, vol. 34,no. 2, 105-123,2007.
- 7. John Roemer paper: "Should Marxist's care about exploitation" in Analytical Marxism and Philosophy & public affairs1985
- 8. Michael Marmot, Richard Wilkinson, Social Determinants of Health: The Solid Facts
- 9. Mel Kohn, Class and Conformity, excerpts
- 10. Mel Kohn and Carmi Scholar, Work and Personality, excerpts 11.Gomberg, How to make opportunity equal (Blackwell,2007)
- 12. Ainscow, M., Booth. T (2003): The Index for Inclusion: Developing Learning and Participation in Schools. Bristol: Center for Studies in Inclusive Education.
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- 14. Jangira N.K. and Mani, M.N.G. (1990): Integrated Education for Visually Handicapped, Gurgaon, Old Subji mandi, Academic Press.
- 15. Jha. M.(2002) Inclusive Education for All: Schools Without Walls, Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
- Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs N. C. E RT Publication.
- 17. Sharma P.L (2003) Planning Inclusive Education in Small Schools, R.I E. Mysore

Semester - IV

Paper - 13

Scientific Principles of Sports Training and Coaching

Unit 1. Sports Training:

- Definition and meaning of Sports Training and Coaching.
- Aims and objectives.
- Characteristics.
- Principles.

Unit 2. Training Load:

- Factors.
- Principles.
- Overload-Meaning, Reasons, Characteristics, Remedies to overcome overload.
- Adaptation Procedure-Meaning, Stages of Adaptation process.

Unit 3. Training of Motor Components:

- Strength-Meaning, Types, Characteristics, Principles of strength of training, Methods of strength training, Strength training for women and children.
- Endurance-Meaning, Types, Characteristics, Methods of Endurance training.
- Speed- Meaning, Types, Characteristics, Methods of speed training.
- Flexibility-Meaning, Types, Characteristics, Methods of flexibility training.
- Coordination- Meaning, Characteristics, Classification, Importance, Training methods of coordinative abilities.

Unit 4.

• Techniques-Meaning, Techniques of different games, Importance of training, Factors

Unit 5. Effects on training process, Correction of faults-Skill, Style and Technique.

• Tactics-Meaning, Aims, Training, Principles of preparation of tactics, Difference between tactics and strategy.

Planning of Training and Competition:

- Planning of Training-Meaning, Importance, Principles and Types.
- Periodization-Meaning, High Performance and Per iodization, Period and Types.
- Competition-Meaning, Importance, Scope, Methods, Frequency, Preparation of Competition.

REFERENCE:

- 1. Harre, Dietrich, Principles of Sports Training (Berlin:Sporulated,1982).
- 2. Dick W. Frank. sports Training Principles (London: Lepus Books, 1980).
- 3. Jensen, R. Clayne, and Fisher A.G. Scientific Basis of Athletic conditioning (Philadelphia: Lea and Fibiger 1979), 2ndEdn.
- 4. Matvyew, L.P. Fundamental of sports Training (Moscow: Progress Publishers, 1981).
- 5. Cratty, J. Brayant Perceptual and Motor Development in Infants and Children (N.J.: Englewood Cliffs, Prentice Hall, Inc.1979).
- 6. Singh, H. Sports Training, General Theory and methods (Partials: NSNIS,1984).
- 7. Bunn, J.W.: Scientific Principles of Coaching.
- 8. Morehouse and Rash: Scientific Basis of Athletic-Training.

Semester - IV

Paper – 14

Sports Medicine

Unit 1. Effecting training, Stages of Training

- Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance.
- Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches.

Unit 2. Sports Injuries and Remedies:

- Injuries:
 - a. General Injuries: Wound, Lesion, Contusion, Burn, Abrasion, Sprain, Strain, Fracture.
 - b. Special Injuries: Injuries on Back, Abdomen, Thigh, Knee, Ankle, Feet, Legs.
- Reasons for Injuries, Preventive measures for injuries, Treatment for Rehabilitation.

Unit 3. Massage and various therapies:

- Hydrotherapy: Contrast Bath, Sauna bath, Water Massage, Whirlpool.
- Cryotherapy: Ice pack, Gel and chemical cold Pack, Ice Massage, melting ice cry therapy.
- Electrotherapy: Shortwave diathermy, Ultrasound, Electric moist heating pad, stimulant, Infrared, Ultraviolet electric waves.
- Exercise Therapy: Isotonic, Isometric, Is kinetic Exercise training.
- Massage: Meaning, Importance, need and Types.

Unit 4. Nutritional diet for athletes and drugs:

- Athlete Nutritional Diet Factors effecting balance diet, Athlete's Diet for different sports and games, Malnutrition in athletes and it scare.
- Doping Meaning, History, Definition, Classification, Types, Use of drugs and their side effects, Role of Coach and Managers in solving the problem of doping.

Unit 5. Women Athlete:

- Anatomical and Physiological differences.
- Health Problems: Menses, Pregnancy, Special problems.

- 1. Ann. Lowlin. Women's Fitness Program Development Human, Kinetics. 2002.
- 2. Bengt O. Eriksson et al, Sports Medicine, GuinnesPublication, 1990.
- 3. Christine M. Drews, Physiology of Sports and Exercise, Human Kinetics, USA,1999.
- 4. David R. Mottran, Drugs in Sports (4th Ed) Routledge Taylor and Francis Group, 2005.
- 5. Erikson, B.O. et al, Sports Medicine, Guiness Pub. Great Britain, 1990.
- 6. Jain, Rachna, Sports Medicine, KSK, New Delhi, 2002.
- 7. Jeyaprakash, C. S., Sports Medicine, J.P. Brothers Pub., New Delhi, 2003.
- 8. Khanna, G.L., Exercise Physiology & Sports Medicine, Lucky Enterprises, Delhi, 1990.
- 9. Mathew D.K. & Fox E.L, Physiological Basis of Physical Education and Athletics, W.B. Saunders Co: Philadelphia,1971.
- 10. Pandey, P.K., Outline of Sports Medicine, J.P. Brothers Pub., New Delhi, 1987.
- 11. Pandey, P.K., Sports Medicine, Khel Sahitya Kendra, NewDelhi, 1998.

Semester - IV Paper – 15

Yogic Science and Naturopathy

Unit 1.

- Yoga-Meaning and Importance, Paths, Precautions, Difference between exercises and Yoga, Types of Asanas and Surya namaskara.
- Ashtang Yoga- Different types of Pranayama and its importance, Kriyas, Bandhas and Mudra sciences-Nadis: Chandranadi, Surya nadi and Agninadi.

Unit 2.

- Place of Shodhan karma in Yoga, Nature of Mechanical Shodhan karma and Classification.
- Different glands in yoga, effect of yoga on different systems, plexis, Kundlini, Scientific observations of Yogasana.

Unit 3.

- Yoga Philosophy, Philosophy of Sankhya yoga, Yoga Psychology, Yoga science of Vibhuti, Prana science of Yoga.
- Panchprana-Upprana and factors deciding pranayama.
- Asanas and Pranayama for therapy of various diseases, Inculcating spiritual values through pranayam.

Unit 4.

- Naturopathy-Meaning, History, Importance and Agencies.
- Principles of Naturopathy

Unit 5.

- Difference therapies done through Naturopathy.
- Shivambu method, Acupressure and Acupuncture methods, Magnetic therapy.

- 1. Swami Kuvalayananda and S.L. Vinekar Yogic Theraphy.
- 2. Asanas–Swami Kuvalayananda. Kaivalyadha, a, Lonavla.
- 3. Swami Kuvalayananda, Kaivalyadhama, Lonavla Pranayama.
- 4. K. Chandrasekar Sound Health Through Yoga by Prem Kalyan Publications, Sedapatti, 1999.
- 5. Teaching Methods for M.L. Gharote and Yogic Practive S.K. Ganguly, Kaivalyadhama, LonavlaM.L. Gharote-Applied Yoga–Kaivalyadhama, Lonavla.
- 6. Yogasanas: A Teacher's Guide-NCERT, New Delhi.
- 7. O.P. Tiwari- Asanas–Why? And How? Kaivalyadhama, Lonvla.
- 8. R. Thirumalaisamy (1987) Yoga for Good Health, Karaikudi Senthil Kumar publishers.

Semester - IV

Paper – 16.2 (Elective)

Philosophical Foundation and History of Physical Education& Sports

OR

Dissertation

Unit 1.

- Education
- Meaning, Definition, Aims and Objectives of Education.
- Meaning, Definition, Aim and Objectives of Physical Education and Relationship of Physical Education with General Education.
- Physical Education and Philosophy.

Unit 2.

- Psychological Basis of Physical Education
- Play and Theories of Play
- General Principles of Growth and Development
- Principles of Motor skill acquisition

Unit 3.

• Philosophies of Education as applied to Physical Education-Idealism, Naturalism, Realism, Pragmatism, Existentialism and Humanism.

Unit 4.

- Sociological Basis of Physical Education
- Socialization Process
- Social Nature of Man and Physical Activities, Sports as cultural heritage of mankind.
- Customs, traditions and Sports.

Unit 5.

- Physical Education in Ancient Greece, Rome, Germany, Sweden, Denmark, and Russia.
- Physical Education in India.
- Olympic Movement Historical Development of Ancient and Modern Olympics.

- 1. Jay Coackley Sports in Society: Issue & controversies (2007) McGraw Hill, New York
- 2. Shamshad Ahmed. Education in Physical Education Books (2005). Isha. New Delhi.
- 3. Syal, Meenu. Physical Education Sports and Games. Sports Publication, (2005). New Delhi
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