



UNIVERSITY OF CALICUT

Abstract

BPE course-4 year Integrated BPE -Revised Syllabus-approved-implemented with effect from 2013 admissions-Orders issued.

UNIVERSITY OF CALICUT (G & A - IV - J)

U.O.No. 2295/2013/CU

Dated, Calicut University.P.O, 26.06.2013

*Read:-*1. U.O. No. GA IV/J2/4355/07(5) Dated 15.09.2009

2. U.O. No. GA IV/J2/4355/07(1) Dated 15.09.2009

3.Item no. 1 of the minutes of the meeting of the Board of Studies in Physical Education UG held on 23.11.2012.

4.Item no. 2 of the minutes of the meeting of the Faculty of Education held on 26.03.2013.

4.Orders of the Vice Chancellor in the file of even no. on 24-6-13

ORDER

As per paper as (1) above, the duration of the BPE course was changed from three years to four years and implemented w.e.f 2009 admissions.

Modified Syllabus of the BPE course has been implemented w.e.f 2010 admission as per paper read as (2) above.

The Board of Studies in Physical Education (UG) in its meeting held on 23rd November 2012 resolved to approve the Revised Syllabus for the 4 year Integrated BPE course w.e.f 2013 admissions as per paper read as (3) above.

The Faculty of Education in its meeting held on 26.03.2013 also resolved the same, vide paper read as (4) above.

The Vice Chancellor, considering the exigency, exercising the powers of the Academic Council, has approved the item to implement the syllabus, subject to ratification by the Academic Council as per paper read as (4) above.

Sanction has, therefore, been accorded for implementing the syllabus of 4 year integrated BPE course, with effect from 2013 admissions.

Orders are issued accordingly.

The Syllabus is available in the University website:www.universityofcalicut.info

Shanawaz T.P
Assistant Registrar

To

1. The Chairman Board of Studies in Physical Education UG
2. Affiliated Colleges offering BPE course
3. The Director DPE/CPE

Forwarded / By Order

Section Officer

Bachelor of Physical Education

Four Years B.P.E Programme (Integrated)

**Regulations
Scheme of Examinations
and
Syllabus**

Submitted to

University of Calicut

By

**The Chairman
Board of Studies in Physical Education (UG)**

SYLABUS AND REGULATIONS

FOR THE DEGREE OF BACHELOR OF PHYSICAL EDUCATION (B.P.E) FOUR YEAR INTEGRATED COURSE

1. NATURE OF COURSE

It is a residential programme of four years duration open for both sexes. Theoretical knowledge, acquisition of skills in different games and sports, specialization in a sport and teaching practice (Activity and Theory) along with Internship programme are the five main areas of course. The students are equipped in these five areas in order to make them ideal leaders in the field of Physical Education and sports. The course of the study is through English Medium.

2. OBJECTIVES OF THE COURSE

- (i) To impart professional training for teaching physical education, sports and health education in high and higher secondary schools.
- (ii) To develop expertise in supervising teaching of physical education by classroom teachers in Elementary Schools.
- (iii) To develop competence in assisting the conduct of sports programmes in higher education institutions.
- (iv) To develop knowledge, physical fitness and sports skills incidental to the objectives mentioned above (i, ii, and iii)
- (v) TO develop management skill in organizing and conducting sports meets and mass demonstrations of Physical Education activities.
- (vi) To develop the competence of officiating in sports competitions.
- (vii) To promote mass participation in sports and inculcate interest in sports activities.

3. ELIGIBILITY FOR ADMISSION

The candidates of both sexes are eligible to seek admission for B.P.E. Degree course if they fulfill the following conditions.

1. Candidates should not have completed 23 years of age as on 1st July of the concerned academic year.
 - (i) In service candidates having good sports record who are deputed and are below 30 years of age as on 1st July of the concerned academic year can also seek admission.
 - (ii) The candidate should have passed the HSE/VHSE examination of Board of Secondary Education (HS board or VHS Board Govt. of Kerala) or an examination considered as equivalent there to by the University.
 - (iii) The candidate has passed SSLC or equivalent examinations and a certificate course in Physical education of at least two years duration from a recognized institution of Physical Education approved by the Calicut University.
2. The candidate produces a medical certificate of organic fitness for daily heavy load of physical work, absence of physical defects, and medical history of absence of disability and congenital diseases. The recommendation of the panel of medical doctors commissioned by the institution conducting the course, with the approval of the University will be final

However merit of the candidates with diverse qualification will be determined by the admission test prescribed by the University. Preference will be given to applicants with proven interests and talents in sports skills, as evidenced by participation records. A candidate who passed/appeared/ discontinued I/II/III year of any other degree course as recognized by this University or equivalent is also eligible to seek admission to BPE course

4. DURATION OF THE COURSE

The course of study for the BPE Degree shall extend over a period of four academic years with a minimum 200 working days per year consisting of four parts BPE –I, BPE- II, BPE-III and BPE- IV. The course of studies consists of 5 parts.

- A – Theory
- B – Physical Activity Skills
- C – Teaching Ability
- D – Sports Specialisation
- E – Internship

Each working day shall consist of three hours of theory and four hours of practical (Skill) work.

5. ATTENDANCE

Each academic year shall be taken as a Unit for the purpose of calculating attendance and a student shall be considered to have satisfied the requirement of attendance for the year, if he/she has attended not less than 85% of the number of working periods in each of the papers under theory and each of the heads under activities. A candidate who does not satisfy the requirements of attendance shall not be permitted to take the University examination. However, shortage of attendance to the extent of 10 % subject to a maximum of two times during the whole period of Course, may be condoned by the University on the recommendation of Head of the Institution/Department, on genuine grounds on payment of fees, as prescribed by the University.

In addition to the above provisions, a candidate in order to be eligible to appear for the BPE-IV examination should have attended a leadership training camp of at least 10 days and an Internship of not less than two months.

A student who is to miss any period on being assigned for other engagement by the institution at that time (e g: to take part in sports or co-curricular competitions) will be marked “Present on other duty” on written authority from the concerned member of the Staff and approved by the Head of the Department.

6. MINIMUM FOR PROMOTION/PASS

A student failing in any paper in Part A – Theory, Re-examination in the failed paper will be taken at the next subsequent University Examination. Candidates failed in Practical Skills (Part B, C, D) are allowed to take up theory Examinations. In Practical (Part B, C and D), re-examination for failed candidate in the concerned part, will also be conducted.

A student failing in any paper/subject/activity of part A,B,C,D,E in BPE-IV may appear as ex-student at the examinations in subsequent years. He may also seek re-admission subject to the recommendation and approval of the Head of the Department.

A student having completed the course of study fails to pass in all the papers/subjects/activities of Part A,B,C,D of BPE –I, II III and IV within a period of 8 years from the date of first admission to BPE – I, shall forfeit the right to get the degree of BPE.

A student permitted to take re-examination in subsequent years, will carry forward the sessional marks originally secured.

CLASSIFICATION OF SUCCESSFUL CANDIDATES:

Total marks in all parts (A, B, C and D) of Four years will be taken into account for classification of successful candidates.

- | | | | |
|----|-----------------------------------|---|-----------|
| a) | 40% and above but less than 50 % | - | III class |
| b) | 50 % and above but less than 60 % | - | II class |
| c) | 60 % and above* | - | I class |

*A candidate who passes successfully I/II/III/IV years' examinations in first attempts and scores 75% and above marks shall be placed in First class with distinction.

The achievement/distinction of the candidate to be mentioned separately in the marks/degree certificate.

NOTE:

- i. There will be no minimum for a pass in Internal (sessional) assessment in Part A – Theory.
- ii. Provision for betterment (part A – Theory)

A candidate should be permitted to reappear for betterment of marks (retaining his/her original marks) subject to the following conditions.

- a) Re-appearance for betterment of marks obtained in part A theory papers of first year will be allowed only once along with the subsequent second year examinations.
- b) Re-appearance for betterment of marks obtained in the Part A theory papers of second year examination should be allowed only once along with the subsequent III year examinations.
- c) Re-appearance for betterment of marks obtained in the Part A theory papers of Third year examination should be allowed only once along with the subsequent IV year examinations.
- d) There will be no provisions for re-appearance for betterment of marks obtained in Part A – theory papers of IV year.
- e) There is no provision for improvement in other parts i.e. B,C,andD

PART A

Each theory paper will carry maximum of 75 marks for University examination and 25 marks for internal assessment.

A candidate who gets 35% marks in each paper and gets 40 % aggregate marks in Part A in each year will be declared to have passed in the part. There will be provision for paper – wise pass also if gets 40% of marks. A candidate who gets 40 % marks in a paper under part A but could not get the paper minimum for a pass in the part will be declared to have passed in that paper in which he gets 40% of marks.

Internal assessment for 25 marks in each paper in part A shall be on the basis of internal examinations, assignments and evaluations conducted by the concerned teacher.

PART B :Physical Activity Skills

Under Part B, ten activities shall be chosen for each year from the total number of activities specified for BPE – I/II/III years to suit administrative convenience of the center concerned limiting it to the working hours. Internal test for 50 marks shall be conducted for 5 activities each out of 10 activities chosen for a total mark of 250 for each year. Students shall maintain a record book which shall be presented at the time of evaluation at the conclusion of instruction in each activity to the concerned teacher. Minimum for pass in Part B are 40 % of marks each activity. The details of activities to be chosen under part B for BPE –I/II/III are given in the table under the head of “Part B, Activities BPE – I/II/III”.

PART C :Teaching ability

Candidates should take 10 internal and 10 external lessons at different schools in the neighbourhood and should maintain a record book, to be evaluated for a total mark of 150 (sessional mark). University examination should be conducted for a total mark of 100 by internal and external examiners. Minimum for a pass in Part C is 40 % aggregate.

PART D: Sports Specialization

A candidate shall specialize in sports disciplines in each year as follows.

BPE- I	Track & Field
BPE -II	Track & Field
BPE -III	Track & Field
BPE- IV	Optional Game

NOTE:

1. Track and Field activities can be classified as Running Events, Throwing & Jumping events and taught in BPE-I/II/III years according to the administrative convenience of the Centre.
2. Major games for optional game can be chosen from the list under the head of “Major Games –Optional “.
3. A record book is to be maintained for evaluation during University Practical examination for 25 marks, to be assessed by internal and external examiners.

COURSE AND SCHEME OF EXAMINATION FOR BPE (FOUR YEARS) DEGREE

BPE I year

PART – A: Theory Papers – 600 Hours

Maximum Marks -500

Paper	Subject	University Examination mark maximum	Sessional mark maximum	Total	Duration of University Examination
Paper I	English	75	25	100	3 hours
Paper II	Basic and Systemic Anatomy	75	25	100	3 hours
Paper III	Sociology	75	25	100	3 hours
Paper IV	History of Physical Education	75	25	100	3 hours
Paper V	Fundamentals of computers and Information Technology	75	25	100	3 hours

NOTE:

Paper Minimum for Pass 35% and aggregate 40% of the total marks.
Paper wise pass 40 %

PART- B : Physical Activity Skill:

Total hours – 400 – Total marks – 250.

Sessional assessment will be after conducting sessional exam in any five of ten learnt and recorded in the Record Book.

PART – D : Sports Specialization :

160 hrs. – Maximum marks : 75

Paper A : Track and Field

		Sessional marks	Total marks
I	Rules and Interpretations	25	75
II	Skill Proficiency	25	
III	Record Book	25	

BPE II year

PART – A : Theory Papers – 600 Hours

Maximum Marks -500

Paper	Subject	University Examination mark maximum	Sessional mark maximum	Total	Duration of University Examination
Paper VI	Teaching methods in physical education	75	25	100	3 hours
Paper VII	Physiology and physiology of exercise	75	25	100	3 hours
Paper VIII	Foundation of physical education	75	25	100	3 hours
Paper IX	Educational and sport psychology	75	25	100	3 hours
Paper X	First aid and safety education and life skill education	75	25	100	3 hours
Paper XI	Environmental studies	75	25	100	3 hours

PART B : Physical Activity Skill:

Total hours – 400 – Total marks – 250.

Sessional assessment will be after conducting sessional exam in any five of ten learnt and recorded in the Record Book.

PART – D : Sports Specialization :

160 hrs. – Maximum marks : 75

Paper A : Track and Field

		Sessional marks	Total marks
I	Rules and Interpretations	25	75
II	Skill Proficiency	25	
III	Record Book	25	

BPE III year

PART-A : Theory Papers – 600 Hours

Maximum Marks -500

Paper	Subject	University Examination mark maximum	Sessional mark maximum	Total	Duration of University Examination
Paper XII	Kinesiology	75	25	100	3 hours
Paper XIII	Health education	75	25	100	3 hours
Paper XIV	Tests and measurement in physical education	75	25	100	3 hours
Paper XV	Scientific principles of coaching	75	25	100	3 hours
Paper XVI	Sports medicine	75	25	100	3 hours

PART-B : Physical Activity Skill:

Total hours – 240 – Total marks – 150.

Sessional assessment will be after conducting sessional exam in any three of ten learnt and recorded in the Record Book.

PART-C : Teaching ability

Total hours – 160 – Total marks – 250.

PART – D : Sports Specialization :

160 hrs. – Maximum marks : 75

Paper A : Track and Field

		Sessional marks	Total marks
I	Rules and Interpretations	25	75
II	Skill Proficiency	25	
III	Record Book	25	

BPE IV year

PART – A : Theory Papers – 600 Hours

Maximum Marks -500

Paper	Subject	University Examination mark maximum	Sessional mark maximum	Total	Duration of University Examination
Paper XVII	Corrective physical education	75	25	100	3 hours
PaperXVIII	Management of physical education and sports	75	25	100	3 hours
Paper XIX	Biomechanics	75	25	100	3 hours
Paper XX	Adapted for physical education	75	25	100	3 hours
Paper XXI	Health and fitness management	75	25	100	3 hours

PART – D : Sports Specialization :

400 hrs.* – Maximum marks : 250

Paper A : Theory of Optional Game – 160hrs. max. marks - 100

Paper B : Optional Game –

skill proficiency and coaching ability – 240 hrs. max. marks - 150

		Sessional marks	University Exam Maximum marks	Total marks
I	Rules and Interpretations	25	50	150
II	Skill Proficiency	25		
III	Coaching ability	25		
IV	Record Book	25		

*Note: 400 hrs. for single discipline, maximum of five disciplines may be provided as optional game, in each institution.

PART- E : Internship / Teaching assistance

(one area to be chosen)

1. Teaching of Physical education in schools
2. Gym and Health club management
3. Aerobics/mass demonstration
4. Teaching Physical activities for differently abled children
5. Sports journalism and management

The duration of internship shall not be less than two months.

Scheme and pattern of BPE degree course

I year

Subject	Teaching hours	Duration of exam	Maximum marks		Total
			Sessional exam	University exam	
Part A- Theory					
Paper I	120	3hrs.	25	75	100
Paper II	120	3hrs.	25	75	100
Paper III	120	3hrs.	25	75	100
Paper IV	120	3hrs.	25	75	100
Paper V	120	3hrs.	25	75	100
Part B- Physical Activity skill	400		250	---	250
Part D – Sports Specialisation					
Paper A : Track and Field	160	---	75	---	75
Intramural and match practice	240	---	---	---	---
Total	1400	---	---	375	825

II year

Subject	Teaching hours	Duration of exam	Maximum marks		Total
			Sessional exam	University exam	
Part A- Theory					
Paper VI	120	3hrs.	25	75	100
Paper VII	120	3hrs.	25	75	100
Paper VIII	120	3hrs.	25	75	100
Paper IX	120	3hrs.	25	75	100
Paper X	120	3hrs.	25	75	100
Paper XI	---	3hrs.	25	75	100
Part B- Physical Activity skill	400	---	250	---	250
Part D – Sports Specialisation					
Paper A : Track and Field	160	---	75	---	75
Intramural and match practice	240	---	---	---	---
Total	1400	---	---	450	925

III Year

Subject	Teaching hours	Duration of exam	Maximum marks		Total
			Sessional exam	University exam	
Part A- Theory					
Paper XII	120	3hrs.	25	75	100
Paper XIII	120	3hrs.	25	75	100
Paper XIV	120	3hrs.	25	75	100
Paper XV	120	3hrs.	25	75	100
Paper XVI	120	3hrs.	25	75	100
Part B- Physical Activity skill	240	---	150	---	150
Part C – Teaching ability	160	---	150	100	250
Part D – Sports Specialisation					
Paper A : Track and Field	160	---	75	---	75
Intramural and match practice	240	---	---	---	---
Total	1400	---	---	475	975

IV BPE

Subject	Teaching hours	Duration of exam	Maximum marks		Total
			Sessional exam	University exam	
Part A- Theory					
Paper XVII	120	3hrs.	25	75	100
Paper XVIII	120	3hrs.	25	75	100
Paper XIX	120	3hrs.	25	75	100
Paper XX	120	3hrs.	25	75	100
Paper XXI	120	3hrs.	25	75	100
Part D - Sports Specialisation					
Paper-A: Optional game Theory	160	3hrs	25	75	100
Paper B : Optional Gam-coaching ability	240	---	100	50	150
Part-E Internship/teaching assistance	160	---	---	---	---

Intramural and match practice	240	---	---	---	---
Total	1400			500	750

WORK LOAD AND STAFF PATTERN

	I BPE	II BPE	III BPE	IV BPE	Total
Part A	600	600	600	600	2400
Part B	400	400	240	---	1040
Part C	---	---	160	---	160
Part D	160	160	160	400*	880
Part E	---	---	---	160	160
Intramural	80	80	80	80	320
Match Practice	160	160	160	160	640
Total	1400	1400	1400	1400	5600

NOTE:

* PART D – Sports Specialisation – Optional Game work load depends on number of discipline provided by the institution. Each Optional Game carries 400hrs. of teaching per year. Maximum of five options can be provided by the Institution.

PART – B Activities BPE I/II/III

I Year	II Year	III Year
Basket ball	Wrestling	Yoga
Football	Weight lifting/ Power lifting	Badminton
Aerobic dance/ Rhythmics	Baseball	Table Tennis
Calisthenics/ Bharathium	Ball Badminton	Tennis
Minor Games	Volley Ball	Hand Ball
Kabadi	Cricket	Hockey
Kho-Kho	Gymnastics	Soft Ball
Marching	Swimming	Judo
Weight Training	Chess	Net Ball

Activities can be interchanged according to the convenience of the Centre.

PART D : List of Optional Game

1. Badminton
2. Basket Ball
3. Cricket
4. Foot Ball
5. Gymnastics
6. Hand Ball
7. Hockey
8. Kabadi/Kho-Kho
9. Track and field
10. Volley Ball

BPE –I- Paper 1

ENGLISH

TEACHING HOURS :120

MARKS :75

UNIT –I

1. Vocabulary

- 1.1 Synonyms
- 1.2 Antonyms
- 1.3 Common abbreviations in use
- 1.4 One Word Substitution
- 1.5 Words Commonly Confused and Misused
- 1.6 Similes
- 1.7 Word Formation by Prefix and Suffix
- 1.8 Idioms and Phrases

UNIT-II

2. Common Errors & Transformations

- 2.1 Common errors in sentences especially regarding number, gender, pronouns, prepositions, articles degrees
- 2.2 Kinds of sentences – Assertive, Interrogative, Exclamatory, Imperative, Optative
- 2.3 Transformation of Sentences
- 2.4 Tenses

2.5 Uses of Tenses

UNIT –III

3. Grammar

3.1 Sequences of Tenses

3.2 Direct, Indirect

3.3 Active, Passive

3.4 Simple, Compound, Complex

3.5 Punctuation

UNIT – IV

4. Written Composition

4.1 Story – Writing (Outline Story)

4.2 Comprehension

4.3 Expansion of Proverbs and Passages

UNIT V

5. Correspondence

5.1 Personal Letters

5.2 Applications for leave, scholarship etc.

5.3 Invitations – Formal and informal with reply

5.4 Notice Writing

5.5 Social Letters

UNIT VI

6. Descriptive Writing

6.1 Paragraph Writing (50 words)

6.2 Essay Writing (250 words)

6.3 Essay Writing (500 words)

6.4 Summary Writing

UNIT VII

7. Comprehension of familiar & unfamiliar passages

7.1 Comprehension of familiar passage

7.2 Comprehension of unfamiliar passage

7.3 Précis writing

7.4 Critical appreciation based on various articles

REFERENCES:

- High School English Grammar – Wren & Martin
- How to Write & Speak better English – John Elisson Kahn, D.Philip

- A Remedial English grammar for foreign students – F.T. wood
- English Vocabulary in use – Michael McCarthy, Felicity O’Dell
- Advanced English Grammar – Martin Haurings
- Common Mistakes at Intermediate, CUP – Driscoll, Liz, Cambridge
- Common Mistakes at Upper- Intermediate CUP- Tayfoor, Suzanne
- The Students companion – Wilfred D. Best
- The technique of comprehension & Précis writing – R.N. Singh – UpkarPrakashan
- Model Precise writing – H.S. Bhatia – Book Place Delhi
- English Vocabulary in use – Michael McCarthyFelicity O’Dell – Cambridge University Press

BPE I- PAPER II

BASIC AND SYSTEMIC ANATOMY

TEACHING HOURS :120

MARKS :75

UNIT I- INTRODUCTION – Definition of Anatomy

Terminology used describing Anatomical positions Importance of study of Anatomy in Physical Education

UNIT II- BODY ORGANIZATION –

Cell, Tissue, Organ and System. Structure of a typical cell.

Structure and functions of cell organelles (Plasma membrane, Endoplasmic Reticulum, Golgi Apparatus, Lysosomes, Mitochondria, Centrioles, Nucleus, Nucleus Acids)

Brief account of Genetic Code and Protein Synthesis.

Tissues – Classification, structure and functions of each type

Body fluids - Blood – Structure and Functions.

Skin – Structure and Functions.

UNIT III - SKELETAL SYSTEM –

Macroscopic and microscopic structure of a bone.

Functions of bones.

General Organization of skeletal system.

Axial and Appendicular Skelton.

Skull, Vertebral Column, Limb bones, Girdles.

Structure of a Pentadactyl limb.

Description and Structure of the following bones.

- a. Scapula
- b. Humerus
- c. Radius
- d. Ulna
- e. Hip bone
- f. Femur
- g. Tibia & Fibula
- h. Typical Vertebra
- i. Skull bones
- j. Rib

UNIT IV- JOINTS DEFINITION, CLASSIFICATION

Structure of typical movable joint, types of movable and immovable joints.

Movements around and the muscles

- a) Shoulder Joint
- b) Hip Joint
- c) Elbow Joint
- d) Knee Joint
- e) Ankle Joint
- f) Wrist Joint

UNIT V- MUSCULAR SYSTEM

Types and functions of muscles- Voluntary, involuntary and Cardiac, Structure of a typical voluntary muscle.

UNIT VI- RESPIRATORY SYSTEM :

Structure, Respiratory passages and lungs.

Structure of Larynx, Trachea, Lungs – Bronchial Tree.

Muscles of Respiration.

Tidal air, Residual air, Complemental air, Supplimental air, Vital Capacity of Lungs.

UNIT VII- CARDIO VASXULAR SYSTEM : General Plan

Structure of heart, working of heart, Heat, beat, heart rate, Cardiac Cycle, Cardiac Output, Heart sounds.

Structure of Arteries, Veins, Capillaries

Blood pressure - Systolic and diastolic

Pulse pressure - measurement of Blood

Pressure - Hypertension and Hypotension

Anemia - Types of Clotting of blood & its Chemistry.

UNIT VIII- DIGESTIVE SYSTEM :

Structure of Alimentary Canal. Histological structure of glands.

UNIT IX- EXCRETORY SYSTEM

Structure of Kidney

Structure of Nephron

Role of skin in excretion

UNIT X- NERVOUS SYSTEM :

Divisions – Central and peripheral, cerebrospinal and autonomous nervous system; Brain and spinal cord.

Structure of :

Cerebrum

Cerebellum

Pons

Medulla Oblongata

Spinal cord.

Maintenance of posture and equilibrium

UNIT XI- SENSE ORGANS :

Eye : Structure, function of each part, mechanism of vision. Eye defects:

Myopia

Hyperopia

Presbyopia

Astigmatism

Ear : Structure. Structure of membranous labyrinth

function – equilibrium and hearing.

Nose : Structure - Smell.

Taste buds : Types and distribution.

UNIT XII- ENDOCRINE SYSTEM :

Location, Structure, Secretion.

The roles of

- a) Pituitary
- b) Thyroid
- c) Adrenal
- d) Pancreas
- e) Sex Glands.

Abnormalities caused by Hypo and Hyper Secretion.

REFERENCE

1. Pearce Evelyn C. Anatomy and Physiology for Nurses 15th edition, Oxford University Press, 978.
2. Wilson Kathleen. J.W. Anatomy and Physiology in Health and illness. 6th ed. Churchill Livingstone Edinburgh, 1987
3. Tartarinov V-Human Anatomy and Physiology. 2ndedn MIR publishers. Moscow. 1971. Translated from Russian by David A. Myshne
4. Chaurasia A.D. Human Anatomy 3 volumes. Published by SATish Kumar jain New Delhi 1979.
5. Winwood R.S. Smith J.L Sear's Anatomy and Physiology for Nurses. 6thedn. London. WCIB 3 DQ Edward Arnold 1985

BPE – I- PAPER III

SOCIOLOGY AND SOCIOLOGY OF SPORTS

TEACHING HOURS :120

MARKS :75

UNIT I

Sociology and its basic concepts :

Nature, scope and methods of sociology,

Society, Community, associations, institutions, customs and folkways, values and norms.

Biological factors – Role of heredity and environment, race prejudice

UNIT II

Main features of Indian Society :

Religious pluralism (Hinduism ,Islam&Christianity)

Linguistic Pluralism

Indian Policy – Secularism, Democracy, Social Justice.

Socialization, Nature and techniques of social control and their social consequences :

Groups – Primary and Secondary crowds and publics; Family kinship and marriage, social stratification, class and caste.

UNIT III

Origin of the Community and Origin and growth of culture, individual and culture, Culture and civilization.

UNIT IV

Concept of personality, and influence of group and culture in its formation

UNIT V

Social and cultural change : concept and factors of social change, sports as social phenomenon and a cultural product : Sports and Socialization.

UNIT VI

Social organization and disorganization.Characteristics of social disorganization; Distinction between Social organization and disorganization; Causes of social disorganization.

UNIT VII

Introduction to sports sociology

Nature and scope, Aim, Values of sports in the society, Influence of society on sports and vice- versa. Sports and Mass Media, Sports and Politics, Socio-Economic factors in sports.

REFERENCE BOOKS

1. Iver M.C. Society, London : MC Millan Co. 1962
2. Oghburn, William F and Ninkoff, Meyer F, Hand Book of Sociology, New Delhi Eurasis Publishing House 1964.
3. Mukherjee D.P.Sociology and Indian Culture: Jaipur. Rawat publications, 1979.
4. DASAT.A.R. Rural Sociology in India.Bombay : Popular Prakashan Private Ltd. 1969
5. Loy Jr. John W. Kenyon, Gerald and Mcpherson, Barry S. Sports Culture and Society. Philadelphia – Lea and Febiger, 1968.
6. Phonomyoy N.I. Sports and Society. Moscow : Progress Publishers 1981

B.P.E – I - PAPER IV

HISTORY OF PHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT I

Meaning need and importance of Physical Education with preference to historical perspective of education, physical education in Ancient India – Vedic period, Epic period, Pre and Post Independent India.

UNIT II

Physical Education in Ancient Greece, Sparta ad Athens: Pan HellenicFestivals : Physical education in Ancient Rome, Utilitarianism, the thermae, circus, Gladiatorial combats.

UNIT III

Ancient Olympic Games : Origin, events, rules and values : Modern Olympic Games – Revival, Olympic oath, Olympic emblem, Olympic Flag, cavalcade of the games, Olympic motto,

UNIT IV

Institutions and innervations in Physical Education ;

- i. Germany (Johan Basedow, Guts Muths, Fredrich Ludwig John (Turnverine Movement), Adolf Spiese
- ii. Sweden (Per Henric Ling, Lingiad)
- iii. U.S.A. (Dr. Dio Lewis; Dr. Dudley Allen Sargent. The Turnverine Movement in America, Spring field college of P.E. Origin of modern games and recreation movement).
- iv. U.S.S.R. (Physical education in schools and Industry, The Spartakiad)
- v. Japan (Before and after world war II)

UNIT V

Physical Education in Contemporary India : Akharas and Vyayam – Shalas and their contributions. The British Influence on P.E. in India; Physical training, Gymkhanas and sports clubs. YMCA and its contributions to P.E. Teacher's Training Institutions in P.E. Indian Olympic Association, National Sports Federations and State Associations.

History of Physical Education in Kerala – G.V. Raja. Kalaripayattu – Boat races

UNIT VI

Post-Independence developments in P.E. Various Commissions and Committees in P.E. (Adhoc Enquiry Committee 1958, Kaul Kapoor Committees, CAPBE.)

National Plan of P.E.; All India Council of Sports (AICS); National Physical Efficiency Drive (NPED/NPFP); national Discipline Scheme (N.D.S); National Fitness Corps (NFC); National Cadet Corps (NCC); National Social Service (NSS); National Sports Organisation (NSO)

Sports and Youth Programme : Netaji Subhas National Institute of Sports (NSNIS); Sports Authority of India (SAT) and its Schemes for promotion of Sports; Youth Welfare Programme (NYK, Youth Hostels PYKKA); National Sports Awards (Arjun Award, Dronacharya Award); Rajeev Gandhi Khel Ratna – Dhyanchand.

UNIT VII

Professional Organizations of physical Education and Sports : Indian Association of Teachers of Health, Physical Education and Recreation (IATHPER); Indian Association of Sports Scientist and Physical Educationalists (IASSPE); Sports Physiology Association of India (SPAI) ; National Association of Physical Education and Sports (NAPESS); Development of Sports Sciences; Future of Physical Education.

REFERENCE

1. Hackensmith, C. W. History of Physical Education, New York, Harper & Row Publishers, 1966.
2. Van Dalen, D.B. Bennet, B.C: A World History of Physical Education. Englewood Cliffs, N.J. Prentice Hall, Inc. 1973.
3. Arunnarayanan, C and Hariharan Sharma, S: An Analytical History of Physical Education, Karikudi (1978)
4. Khan, ErajAhamed : History of Physical Education, Patna Scientific Corporation (964).
5. Kamalesh, M.L.: Physical Education Facts and Foundations, Faridabad P.S. Publication (pvt) Ltd. (1988).
6. Annual Report of Department of Youth Affairs and Sports from Ministry of Human Resource Development, Government of India.

BPE – I- PAPER V

FUNDAMENTALS OF COMPUTERS AND INFORMATION TECHNOLOGY

TEACHING HOURS :120

MARKS :75

UNIT – I

1. Introduction to Computers
 - 1.1 Brief history and development of computers
 - 1.2 Generations of computers
 - 1.3 Types of PCs-Desktop, Laptop, Notebook, Palmtop, Workstations
 - 1.4 Basic components of a computer system
 - 1.5 Memory –RAM, ROM, and other types of memory
 - 1.6 Need of Software, Types of Software
 - 1.7 Operating System
 - 1.8 Types of Virus, Virus detection and prevention.
 - 1.9 Binary Number system

UNIT II

2. Introduction to windows
 - 2.1 Using Mouse and moving icons on the screen
 - 2.2 My Computer, Recycle Bin, Status Bar
 - 2.3 Start –menu selection, running an application,

- 2.4 Window Explorer to view files, folders and directories, creating and Maximize forms of windows
- 2.5 Operating and Closing of different Windows, Minimize, Restore and Maximize forms of Windows.
- 2.6 Basic components of a window : Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars, Using right button of the Mouse,
- 2.7 Creating Shortcut, Basic Windows Accessories: Notepad, Paint, Calculator, Word pad, using Clipboard.

UNIT III

3. Introduction to Word Processor, Electronic Spread Sheet, Database and Multimedia Presentations

Types of Word Processor

Basic Knowledge about free Software – Open Office

MS – Word

1. Creating and Saving a documents, Editing and Formatting a Document including changing colour, Size, Font, alignment of text
2. Formatting paragraphs with line or paragraph spacing, adding headers and footers, numbering pages
3. Using grammar and spell check utilities, etc., Printing Document
4. Inserting Word Art, Clipart and Pictures
5. Page Setting, Bullet and Numbering, Borders, Shading Format Painter, find and replace
6. Inserting Tables, Mail Merge.

MS – Excel

1. Creation of work book and work sheet
2. Saving a work book/file
3. Understanding work sheet – Row, Column and cell
4. Parts of excel screen : Title bar, Menu bar, Tool bars, Formula bar, Cell Address, Scroll bars Sheet tab, Status bar
5. Entering Formula
6. Inserting Graph and Chart

MS- PowerPoint

1. Starting MS – PowerPoint
2. Components of a Presentation – Text, Pictures, Chart, Graphs, Tables, Bulleted list, Movie clippings, Sound clippings.
3. Different ways of viewing a presentation file
4. Slide show – Normal presentation, Presentation with customized animation effects, Action settings through buttons , Sound effects, Slide transition effects, Presentation timing setting

5. Saving and Quitting a file

Data base

Use and importance of Data base

UNIT – IV

1. Introduction to Information & Communication Technology
 - 1.1 Concept, Importance, Meaning & Nature of Information & Communication Technology
 - 1.2 Need and Scope of ICT in Education & Physical Education
 - 1.3 Paradigm shift in Education due to ICT content with special reference to curriculum.
 - 1.4 Change in Role of Teacher, Methods of Teaching, Classroom Environment, Evaluation procedure with new technologies

UNIT - V

2. Introduction to internet
 - 2.1 Internet
 - 2.2 E- Mail
 - 2.3 World Wide Web (WWW)
 - 2.4 Web publishing concepts :

Practicals :

The practicals will be conducted based on the syllabus

REFERENCES:

- Simmons Ian, Computer Dictionary, BPB Publications – 2005
- V. Rajaraman, Fundamentals of Computers, Prentice Hall of India, New Delhi-2000
- B.Ram, Computer Fundamentals, New Age International Publishers -2006
- Pradeep K. Sinha, Priti Sidonha, B.P.B. Publication, Computer Fundamental, Third Edition -2005
- B.Ram, New Age International Publication, Computer Fundamental, Third Edition -2006
- Sanjay Saxena, Vikas Publication House, Pvt. Ltd. Microsoft Office for ever one, Second Edition -2006
- Brain Unders IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition -2001
- ITL Education Solution Ltd. Introduction to information Technology, Research and Development Wing – 2006
- Simmons Ian, Computer Dictionary, BPB Publications 2006

- Douglas E. Comer, The Internet Book, Purdue University, West Lofayette in 2005
- S.JaiswalGlagottia Publication PVT.Ltd. I.T (Today), Revised Edition 2004
- Douglas E. Corner low price edition, The Internet Book, Third Edition – 2005
- Shashank Jain & Satish Jain, B.P.B. Publication ‘O’ level Internet and web design, Edition 2003.
- Intel & NCST, Intel Teach to the Future, Intel Corporation 2002
- Douglas.E . Comer, The Internet Book, Prentice Hall of India Pvt. Ltd New Delhi, 2003

BPE – II- PAPER VI

TEACHING METHODS IN PHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT. I

Meaning and scope of methods , Factors Influence the methods of teaching, formal and informal methods of teaching, basic and modern traits of teaching ; differences in class room teaching and teaching on the ground, teaching and learning process.

UNIT. II

Age and sex characteristics, pre-school, primary, middle secondary, higher secondary and college levels; activity planning according to age and sex; influence of sex differences in teaching and learning physical, physiological and sociological needs.

UNIT. III

Principles of teaching –Simple Complex learning, Individual and group- Motivation, feedback in learning, manner, materials, capacity of the learning frequency administration of teaching period recognition of learning and re-enforcement classification of students.

UNIT. IV

Methods of teaching physical activities; calisthenics, rhythmic, aerobics, dances, light apparatus; gymnastics, individual and dual sports; lead –up and minor games, major games mass activities.

UNIT. V

Presentation technique –steps in teaching motor skills, commands and their importance, types of class formation in teaching and learning process; class management, a good class management.

UNIT. VI

Lesson planning – Importance and objectivities, various facets of lesson plan, teaching and coaching lesson plans in physical education, Evaluation of general and specific lessonplans.

UNIT. VII

Audio –Visual aids, gadgets/in teaching physical activities need and importance, criteria and steps in selecting teaching aids, their purchase and maintenance.

UNIT. VIII

Dimension and meanings of sports and games areas(track and field and major games). Tournaments and competitions in knock-out, league/ round Robin, Combination and challenge Systems, Organization and conduct of competition/ tournament in individual, dual team games and sports; and mass competition.

UNIT IX

Qualities of an ideal and successful teacher; evaluation of teaching methods and learning procedures; modification and innovations in teaching.

UNIT IX

Qualities of an ideal and successful teacher; evaluation of teaching methods and learning procedures; creativity, modification and innovations in teaching.

REFERENCE :

1. Tirunarayan C. Hariharan.S. Methods in Physical Education South India Press, Karaikudi (1986).
2. Charles A. Bucher and Constance R. Koenig, Methods and Materials for Secondary School Physical Education.The C.V. Mosby Company, Saint Louis (1978)

3. Linus G. Dowell, Strategies for teaching Physical Education Prention Hall(1975)
4. S.K. Kochhar Methods of Techniques of Teaching Sterling Publishers, Pvy (1985)
5. M.L. Kamlesh and M.S. Sangral. Methods in physical Education prakash Brothers (Ludhiena(19850
6. Bucher and Wuest. Foundations of Physical Education and sport Time Mirror /Mosby, 1987).
7. Judith E. Rink. EachingPhusucal Education for learning. Times Mirror/ Mosby (1985).
8. Arthur G. Miller and James S. Sullivan Teaching Physical Active activities to impaired youth. John and Willey and sons (1982)

B.P.E – II- PAPER VII

PHYSIOLOGY AND PHYSIOLOGY OF EXERCISE

TEACHING HOURS :120

MARKS :75

PHYSIOLOGY

UNIT.I MUSCULAR SYSTEM

Muscle contractile proteins

Physical and chemical change during contraction

Characteristics of muscle – Excitability, elasticity and Contracticity.

Neuromuscular functions :

Effects of exercise on muscles

Muscle tone and fatigue

Physiological aspects of warming up, conditioning and training.

Factors affecting speed, strength and endurance,

Acquisition of skill

UNIT. II RESPIRATORY SYSTEM :

Mechanism of respiration
Respiratory rate – control
Gas exchange in the lungs
Pulmonary (external) respiration
Tissue (internal respiration)

UNIT. III CARDIO VASCULAR SYSTEM – General Plan

General Plan of Blood Circulation – double circulation

UNIT. IV DIGESTIVE SYSTEM :

Accessory Glands – Salivary glands, Liver and Gall Bladder
Pancreas. Their secretions and their actions. Functions of liver.
Enzyme : Classification, Mode of action of digestive enzymes.

UNIT. V EXCRETOTY SYSTEM :

Excretion – Ionic and osmotic regulation
Physiology of excretion –Ultrafiltration, selectivereabsorption,
secretion.
Regulation of excretion – Ultrafiltration

UNIT. VI NERVOUS SYSTEM

Function of :
Cerebrum
Cerebellum
Pons
Medulla oblongata
Spinal Cord.
Functions of Autonomous nervous system Reflex action

UNIT. VII METABOLISM :

Catabolism and anabolism. Metabolism of Carbohydrates, Fats and
Proteins.

UNIT. VIII TEMPERATURE :

Maintenance of constant body temperature:
Influence of temperature on metabolism.

UNIT. IX DEMONSTRATIONS

Stethoscope - Breathing, Heart Sounds

Reading of Pulse rate during rest and exercise.

PHYSIOLOGY OF EXERCISE

UNIT.I

Effect of Exercise on respiratory, circulatory Digestive and muscular systems – Physiological aspects of warming up, conditioning and training – Physiological factors affecting speed strength, endurance and acquisition of skill – Relationship between duration and severity of exercise – stitch and cramps – aging changes in the body.Oxygen debt, second wind, Principles of use and disuse.

B.P.E – II PAPER VIII

FOUNDATION OF PHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT. I

INTRODUCTION TO EDUCATION

Meaning aims, scope, nature of education

Types of education :

Agencies of education and their roles;

Role of education in National Integration and International relations.

UNIT. II

Aim and objectives of physical education

Meaning, aim and objectives, scope, nature of physical education, meaning of principles and their applications;

Relationship between aims and objectives of physical education with education objectives of physical education at different educational levels;

Physical education as an athletic science : a body of knowledge as an art and science.

UNIT. III

Philosophical Principles

Philosophy, its meaning and nature , Educational philosophies as applied to physical education.

Naturalism, Idealism, Pragmatism, Relation, Existentialism ,curriculum, role of philosophy in educational and physical education;

Contributions of the following educational philosophers – Rousseau Froebel, Montessori , Dewey, Gandhi & Tagore.

UNIT IV

Biological Principles

Evolution of man; biped position, its advantages and disadvantages;

Activities as the physical basis of life ;

Individual differences : heredity and environment, sex differences, body types, implication of individual, differences in physical education;

Growth and development ;Principles governing physical and motor growth and development ;

Chronological, anatomical, physiological and mental ages in individuals their role in developing and implementing programme of physical education

UNIT. V

Sociological Principles

Physical activities (Games an Sports) as man's cultural heritage;

Physical education as a factor in socialization of individuals and groups ; role in national integration;

Brief description of theories of play

Role of physical education in context to social problems-unemployment, youth unrest, health related problems, mechanization, introduction to social stratification and sports.

UNIT. VI

Recreation

Definition, characteristics , leisure, objective and misconception

Agencies providing recreation in India-Govt, Private, Voluntary commercial
Criteria and principles for community recreation
Recreational programme of :
Special groups- physically and mentally handicapped;
Industrial workers ; senior citizens, rural and urban population
Financing community recreation

UNIT VII

Recent trends and problems in physical education; professional preparation in Leadership. Concept about sports for masses and physical education at grass root level.

REFERENCE:

1. Bhatia and Bhatia, Theory and Principles of Education, Delhi, Daba House, Book Sellers and Publishers , 1986.
2. Walia J.S. Principles and Methods of education. Jallander, Paul Publishers, 1985.
3. Agarwal J.C. Theory and Principles of Education, Philosophical and Sociological Bases of education: New Delhi, Vikas Publishing House, Pvt.Ltd. 1987.
4. Kamlesh. M.L. Physical Education Facts and Foundation Faridabad P.R. Publication Pvt.Ltd. 1988.
5. Bucher Charles. A . And WuestDeboraha, Foundations of Physical Education and Sports. 10thEdn. St. Louis, Times Mirror Mosby College Publishing ,1987.
6. Barrow Harold M, Man and Movement: Principles of Physical Education. Third Edn: Philadalphia, Lea and Febiger, 1983.

B.P.E. – II PAPER – IX

EDUCATIONAL AND SPORT PSYCHOLOGY

TEACHING HOURS :120

MARKS :75

UNIT. I

Definition, Meaning and Nature of Psychology: psychology as a Science
Branches of psychology ; Sport Psychology – an emerging discipline.

UNIT. II

Role of Psychology in building up theory and practices in education, physical
Education and sports; Important methods of Psychology(Observation,
Introspection ,Experimentation, Testing, Case Study etc.

UNIT. III

The concept of Mind (Cognition, Affection and Conation); A brief description
of the characteristics and powers of mind. Conscious unconscious , sub

conscious and super conscious , stages of Mind Psychological unity of the human organism.

UNIT. IV

Growth and Development : General Principles; Factors affecting growth; stages of growth and development (Infancy, childhood, adolescence) with special emphasis on perceptual sensory, cognitive, motor, moral, physical, social and emotional characteristics; Maximizing development effects through exercise and support.

UNIT V

Learning : Meaning ,Nature and principles of learning, Traditional theories of learning (Trial and Error, Conditional Reflex, Learning by Insight Learning by Imitation(; Laws of Learning (Readiness Effect, Exercise); Learning curve and its characteristics; Transfer of learning and training, its types conditions of transfer of training.

UNIT VI

Motivation and performance : Meaning of Motivation; Motives unlearned(innate) and learned (acquired) motives, Drive, Need, Motive ; Incentive and achievement motivation; sustaining motivation in exercise and sport.

UNIT VII

Personality; Meaning and structure of personality, influence of genetics and environmental factors in personality development. Personality traits of sports persons. Individual differences and their impact of learning and performance.

UNIT VIII

Guidance and Group Work :
Meaning, Definition, Need and purpose of guidance; Counseling ,Team Cohesion, Leadership in group work.

REFERENCES :

1. Gratty, B.J. Psychology in Contemporary Sport. (Third Edititon); Prentic Hall, NJ (1969)
2. Kamlesh, M.L. psychology in Physical Education and sports (second Edition), New Delhi Metropolitan Book Co. (1989)
3. Mangal, S.K. : Psychology An Introduction to Human Behavior New Delhi, Sterling Publishers Pvt. Ltd

4. Bhatia, K.K. and Purohit, Trinath : Educational Psychology and Methods of teaching (Second Edition) New Delhi;Kalyani Publishers, (1985)
5. Crow, L.D. and Crow, A: Introduction to Guidance New Delhi :Euroasia Publishing House.
6. Jones A.J. Principles of guidance , Newyork (fifth Edition) MC

B.P.E- II PAPER X

FIRST AID AND SAFETY EDUCATION AND LIFE SKILL EDUCATION

TEACHING HOURS :120

MARKS :75

FIRST AID

UNIT 1

1. Definition and purposes of First Aid
2. Principles and Ethics of First Aid
3. First Aid – General Procedure
4. First Aid Kit

UNIT II

1. Wounds- Types and its management
2. Fractures – Types and management

3. First Aid for : Burns, Scalds, Animal bites, Snake bite, Poisoning, Chocking and Electric shock, Heat stroke, Snow bite, Drowning
4. CPR

UNIT III

1. First Aid for specific injuries
 - a. Eye, Head, Neck, Abdomen, Organs, Blisters and Burns
 - b. Strain, Sprain, Contusion, Abrasion, Laceration and dislocation
2. Bandaging techniques
3. Techniques of carrying injured persons

SAFETY EDUCATION

UNIT IV

1. Definitions and aims of safety education
2. Traffic safety
3. Safety at Home – falls, fire, suffocation, poisoning by solids and liquids

UNIT V

1. Recreational safety – Fishing, Swimming, Camping
2. Safety at school – School building, school grounds laboratory
3. Safety in Sports and Physical Education – Play fields, Gymnasium, Swimming pool

UNIT VI

1. Disaster Readiness
2. Natural disasters – Cyclone, Tsunami, Floods, Earthquakes, Hurricanes, Blizzards

LIFE SKILL EDUCATION

UNIT VI

1. Sports and Socialization
2. Physical activity and sport – Emotional Adjustment and Wellbeing
3. Substance Abuse among Youth – Preventive Measures and Remedies
4. Yoga, Meditation and Relaxation
5. Sports and Character Building
6. Values in Sports
7. Sports for World Peace and International Understanding

REFERENCE :

1. W. Wayne Worick, Safety Education –Man , his machines, and his environment, Prentice hall Inc.
2. St.John Ambulance, St. Andrew’s Ambulance Association & British RedCross, First Aid Manual, Dorling Kindersly Limited
3. Peggy.A. Houglum, Theraputic Exercise for muscles, Skeletal injuries.

B.P.E- II PAPER XI

ENVIRONMENTAL STUDIES

TEACHING HOURS :120

MARKS :75

UNIT 1:

The multidisciplinary nature of environmental studies Definition, Scope and importance, Need for public awareness.

UNIT II :Natural resources and associated problems.

- a.Forest resources
- b. Water resources
- c.Mineral resources
- d. Food resources
- e.Energy resources

f. Land resources

UNIT III : Ecosystem

Concept of an ecosystem, structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem. Food chains, food webs and ecological pyramids.

Introduction, types, characteristics features, structure and function of the following ecosystems.

- a. Forest ecosystem
- b. Grassland ecosystem
- c. Desert ecosystem
- d. Aquatic ecosystem

UNIT IV : Biodiversity and its conservation

Introduction – Definition : genetic and ecosystem diversity. Biodiversity at global, national and local levels. Threats to Biodiversity : habits loss, poaching of wildlife, man wildlife conflicts

UNIT V : Environmental Pollution

Causes, effects and control measures of:

- a. Air pollution
- b. Water pollution
- c. Soil pollution
- d. Marine pollution
- e. Noise pollution

UNIT VI : Social issues and the Environment

Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people, its problems and concerns. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Wasteland reclamation, Consumerism and waste products, Public awareness.

UNIT VII : Human population and the environment

Population growth, variation among nations, population explosion – family welfare programmes Environmental human health.

REFERENCES

1. Agrawal, K.C. Environmental Biology (Bikaner : Nidhi Publishers Ltd.) 2001
2. Cunningham, W.P., and others. Environmental Encyclopedia (Mumbai :Jaico Publishers Home) 2001.

3. Hawakins, R.E. Encyclopedia of Indian Natural History (Bombay : Natural History Society)
4. Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K : Cambridge University Press), 1995.

B.P.E. – III – PAPER XII

KINESIOLOGY

TEACHING HOURS :120

MARKS :75

UNIT – I Introduction

- a. Definition of kinesiology
- b. Role of kinesiology

UNIT – II Anatomical and mechanical fundamentals

- a. Fundamental and anatomical position
- b. Orientation of planes and axes of motion
- c. Fundamental joint movements
- d. Terminology of muscular attachments
- e. Structural classification of muscles
- f. Functional classification of muscles
- g. Types of muscle contractions

UNIT – III Physiological fundamentals

- a. Gradation of muscle contraction
- b. Reciprocal innervations and inhibition
- c. All or none law
- d. Stretch reflex

UNIT- IV Major characteristics of shoulder Joint, Location, attachments, and actions of muscles acting on shoulder joint.

- a. Pectoralis major
- b. Coraco brachialis
- c. Subscapularis
- d. Biceps brachii
- e. Deltoid
- f. Supra spinatus
- g. Teres minor
- h. Latissimusdorsi
- i. Teres major
- j. Triceps brachii

UNIT- V Major characteristics of shoulder girdle ,Location, attachments, and actions of muscles acting on shoulder girdle joint.

- a. Pectoralis major
- b. Serratus anterior
- c. Subclavius
- d. Levator Scapulae
- e. Rhomboids
- f. Trapezius.

UNIT- VI Major Characteristics of Elbow joint, Location, Attachments, and actions of muscles acting on elbow joint.

- a. Biceps Brachii
- b. Brachialis
- c. Brachioradialis
- d. Supinator
- e. Pronator Teres
- f. Pronator Quadratus
- g. Triceps Brachii
- h. Anconeus

UNIT- VII Major Characteristics of Hip Joint.Location, attachments, and actions of muscles acting on hip joint.

- a. Iliopsoas
- b. Pectineus
- c. Rectus Femoris
- d. Sartorius
- e. Tensor Faciei late
- f. Adductor Brevis
- g. Adductor Longus
- h. Adductor Magnus
- i. Gracilis
- j. Biceps Femors
- k. Semimebranosus
- l. Semitendinosus
- m. GlutiusMximus
- n. Gluteus medius
- o. GlutiusMinimus

UNIT- VIII Major Characteristics of Knee joint.Location, attachments, and actions of muscles acting on knee joint.

- a. Rectus femoris
- b. Vastusintermedius
- c. VastusLaterails
- d. VastusMedialis
- e. Sartorius
- f. Biceps Femoris
- g. Semi membranous
- h. Semi tendinosus
- i. Popliteus
- j. Gracilis
- k. Gastrocnemius.

UNIT- IX Major Characteristics of Ankle Joint.Location, attachments, and actions of muscles acting on ankle joint.

- a. Tibialis Anterior
- b. Extensor DigitorumLongus
- c. Extensor HallucisLongus
- d. Soleus
- e. Flexor DigitorumLongus

- f. Flexor Hallucis Longus
- g. Tibialis Posterior

REFERENCES :

1. Katharine, F. Lutgens Kathryn, Kinesiology – Scientific Basis of Human motion Singapore : Mc. Graw Will International Book Company, 1984)
2. Broer, M.R. Efficiency of Human Movement (Philadelphia : W.B. Saunders Co. 1969
3. Rasch and Burke, Kinesiology and applied Anatomy (Philadelphia : Leaand Fiber, 1967)
4. James G. Hay, The Biomechanics of Sports Techniques. Prentice hall International Inc, New Jerssy 1993.
5. Roger Bartlett, Introduction to Sports Biomechanics. E& FN SponNewYork 1997
6. Gerry Carr, Mechanics of Sport Human Kinetics, 1997

B.P.E – III – PAPER XIII

HEALTH EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT I - HEALTH

Definition of Health, Dimension of Health, Determinations of Health, Spectrum of Health

UNIT II - DISEASE

Disease cycle, Epidemiological triad, Methods of disease transmission, Immunity.

UNIT III - HEALTH EDUCATION

Definition of Health Education, Principles of health Education, Practice of Health Education.

UNIT IV - HYGIENE

Concept of Hygiene, Care of hair, Care of mouth, Care of eyes, Care of ears, Importance of rest, sleep and exercise.

UNIT V - COMMUNITY HEALTH

Sources of water, Sanitary well, methods of water purification, Disposal of garbage, Sanitary latrine, Septic tank, Sewage treatment

UNIT VI - NUTRITION

Classification of food, Proximate principles of diet – Carbohydrates, Fats, Proteins, Important sources and functions of Vitamins, Minerals, Balanced diet, Food guide pyramid

UNIT VII - SCHOOL HEALTH SERVICES

Importance of school health services, Health problems in the school-going child, Brief description of role of school health services- Health appraisal, Nutritional services, Mental health, Playfield safety, First aid.

UNIT VIII

International and National Health Organization and agencies

REFERENCES

1. J.E.Park, K. park – Text book of preventive and social medicine, BanasidasBhanot publishers, Jabalpur, Jabalpur ,1985
2. J.E. Park, K. Park, Text book of Community Health for Nurses, Asrani Publishers, Jabalpur, 1982

B.P.E – III PAPER XIV

TESTS AND MEASUREMENT IN PHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT 1

1. Meaning of the terms test, measurement, evolution and statistics.
2. Need and importance of test, measurement and statistics in physical education
3. Meaning of terms population and sampling, importance and principles of sampling, Techniques of sampling (Random, Stratified, Cluster and systematic sampling)

UNIT II

1. Meaning of Single Score and quantitative data; kinds of data – continuous and discrete
2. Construction of frequency tables
3. Measures of central tendency – mean, median and mode- meaning and uses

4. Measure of variability – range, quartile deviation and standard deviation-meaning and its use
5. Percentiles and quartiles – meaning, uses and calculations
6. Graphical representation of data frequency polygon, cumulative frequency polygon, smoothed polygon or give and bar diagrams and pie diagrams
- 7.

UNIT III

1. Criteria for test selection
 - a. Scientific authenticity of technical standards (reliability, Validity, objectivity, norms)
 - b. Administrative feasibility or economy
 - c. Developmental values (Physical, Social).
2. Administration of testing programme
 - a. Advanced preparation
 - b. Duties during testing.
 - c. Duties after testing

UNIT IV

1. Anthropometric measurements. History and importance. Techniques of taking measurements
 - a. Weight
 - b. Height
 - c. Arm length
 - d. Leg length
 - e. Chest Circumference
 - f. Upper arm girth
 - g. Calf girth.
2. Classification - purposes and values, factors to be kept in mind for classification, general method of classification. Classification Indicates (McCloy's Nelson and Cozen's Thirunarayanan and Hariharan)
3. Somato typing :Kretzlmer and Scheldon's body types and their characteristics.

UNIT V

1. Concept of physical fitness and general motor ability.
2. Measurement of fitness components.
 - a. Muscular strength (isometric, isotonic and isokinetic)

- b. Muscular endurance (sit ups, pull ups)
- c. Cardio- respiratory endurance (harward step stest, coopers 12 min. run/ walk test)
- d. Agility (Sluttle run, squat trust)
- e. Speed (50m. dash, 4 sec. dash)
- f. Flexibility (Sit and reachgomiometry)
- g. Power (Medicine ball throw, vertica jump standing broad Jump)
- h. Balance (Stock Stand)

UNIT VI

1. Fitness tests
 - a. Rogers physical fitness index battery
 - b. Aahperd Youth Fitness Test
 - c. Indiana Motor Fitness Test
 - d. J.C.R. Test
 - e. Kraus- Weber Test

2. Sports skill test
 - a. Lockhart and McPhersons badminton test
 - b. Johnson Basketball ability test
 - c. McDonalad Soccer test
 - d. Broer Miller Tennis test
 - e. Brady Volleyball test
 - f. Dribbling and goal shooting test in hockey

UNIT VII

1. Selected (Snellan's Chart)
 - a. Vision (Snellan's chart)
 - b. Vital capacity (spirometer)
2. Nutritional Status
 - a. Measurement of nutritional status (subjective and objective method), age, height, weight table, skin fold measures
3. Social efficiency meaning and importance BMI
 - a. Mc Clays behaviour rating scale
 - b. Self concept

REFERENCES :

1. Garrett, Henry E. Statistics in Psychologyand Education.

2. Bombay, Vakils, Felter and Simons Ltd. 1981.
3. Mangal, S.K. Statistics in Psychology and Education, New Delhi, Tata Mc Grew Hill publishing Company Limited, 1987.
4. Clarke, H. Harrison and Clarke. David H. Application of Measurement to Physical Education. 6th edition Englewood Cliffs, N.J. Prentice Hall Inc. 1987.
5. Johnson Barry L. and Nelson Jack K. Practical Measurements for eEvaluation in Physical Education. Delhi :Surjeet Publications 1982.
6. Mathews Donald K. Measurement in Physical Education. London W.B. Saunders Company 1973.

B.P.E III PAPER XV

SCIENTIFIC PRINCIPLES OF COACHING

TEACHING HOURS :120

MARKS :75

UNIT I

Meaning and definition of sports training. Qualities and qualification of a coach qualities of a champion, definition of conditioning, training and coaching, aims and objectives of sports training, principles of sports training.

UNIT II

Training load, different types of load, adaptation, super – compensation, significance of load components (volume, intensity, density, frequencies and recovery). Overload, symptoms of overload, fatigue and tackling of over load.

UNIT III

Planning, Short term plan (school, college, District, State, University, Inter-Varsity ,National etc. Long term plan (Asian, Commonwealth, Olympic and World level); Periodization (single, double and triple0 training schedule.

UNIT IV

Definition, types and Methods of physical fitness components.
Training means for the development of motor abilities (Strength, Endurance, Speed, Flexibility and Coordinative abilities)
Technical training - Definition, Importance & Methods
Tactical training – Definition, Importance and methods

UNIT V

Psychological skill training of the players, pep-talks, self talk before, during and after the competition, analysis of individual, group and during the training and competition. Imagery Relaxation Technique

BOOKS RECOMMENDED :

1. Frank W. Dick, Sports Training Principles Lepus Books, London, 2nd edition.
2. Hardayal Singh, Sports Training, General Theory and Methods, NSNIS, Partiala, India, 2nd edition (1990).
3. John Bun . Scientific Principles of Coaching latest edition.
4. James G. Hay, The Biomechanics of Sports Techniques Prentice Hall International Editions, 3rd edition, 1985.
5. Dr. Dietrich Harre, Principles of Sports Training Sportverling Berlin, 1982.

B.P.E III PAPER XVI

SPORTS MEDICINE

TEACHING HOURS :120

MARKS :75

UNIT-I

- 1.1** History and development of Sports Medicine.
- 1.2** Aims and objectives of sports Medicine.
- 1.3** Need and Importance of Sports Medicine.
- 1.4** Scope of sports Medicine.

UNIT-II

- 2.1**Types of injuries in sports:
- 2.2**Skin injuries: Abrasions, lacerations, Incisions, puncture wounds, blisters, sunburn.
- 2.3**Bone injuries: Fractures, Dislocations.
- 2.4** Soft tissue injuries: Contusions, strains, sprains, overuse injuries.

UNIT-III

- 3.1** General principles of management of: Cardiopulmonary emergencies, head and neck injuries, shock, internal injuries, superficial bleeding, fractures, dislocations.
- 3.2** Prevention of sports injuries.
- 3.3** First aid in sports injuries.

UNIT-IV

- 4.1** Therapeutic modalities in sports medicine: Physiological effects of heat and cold.
- 4.2** Brief description of procedure, indications and contraindications of infrared, paraffin Wax, Whirlpool, short wave diathermy, ultrasound, I/R Lamp, microwave diathermy, TENS unit, ice.

UNIT-V

- 5.1** Brief understanding of the following regional injuries, their assessment, immediate Management and rehabilitation: Head injuries types: Scalp injuries, concussion, fracture, intra cranial bleeding, on field evaluation and management of unconscious athlete.
- 5.2** Shoulder girdle injuries: Fracture Clavicle, Acromoclavicular joint sprain.
- 5.3** Shoulder joint: Dislocations, rehabilitation of dislocated shoulder, impingement syndrome.
- 5.4** Elbow: Tennis elbow- rehabilitation.
- 5.5** Spine injuries: On field evaluation, transportation of spine injured athletes.
- 5.6** Low back pain: Prevention of low backache. Brief understanding of rehabilitation
- 5.7** Knee: Types of knee injuries, Brief understanding of rehabilitation after dislocation patella and internal derangement knee.
- 5.8** Thigh injuries: Quadriceps contusion, strain hamstring strain rehabilitation.
- 5.9** Leg-ankle: Causes of shin pain, Achilles tendonitis, ankle sprains, rehabilitation of Sprained ankle.

UNIT-VI

- 6.1** Thermal injuries: Heat and Cold
- 6.2** Prevention and management of heat cramps, heat fatigue, heat exhaustion, heat stroke, Hypothermia, Frostbite, cold burns.

UNIT-VII

- 7.1** Brief understanding of the special problems of the female athletes.

UNIT-VIII

- 8.1** Nutrition for the athlete, proximate principles of diet, pre-game meal, sugar & fluid intake during competition, carbohydrate loading.
- 8.2** Meaning, definition, classification benefits of ergogenic.
- 8.3** Doping: Definition, classification, Hazards and its control.
- 8.4** IOC, FIMS , WADA, NADO, RADO

PRACTICALS

1. First Aid for:

Soft tissue, bone & joint injuries

Training in cardiopulmonary resuscitation.

Emergency bandaging and splinting techniques.

On field evaluation and transportation of the spine injured athlete.

2. Therapeutic Modalities

(i) Cryotherapy

(ii) Thermotherapy

I/R lamps

Wax bath

(iii) Electrotherapy

TENS

Short wave diathermy

Microwave diathermy

Ultra sound

(iv) Hydrotherapy

Whirlpool

(v) Exercise therapy

Isometric exercise

Isotonic exercise

REFERENCES

1. Roy Steven and Richer Irvin. Sports Medicine, Prentice Hall. 1983.
2. Kulund Daniel. N. The Injured Athlete, Philadelphia: J. B. Lippincott Co. 1988.
3. BooherJames M. and Thibodeau Gary-A. Athletic Injury Assessment, Toronto: Mosby
4. College Publishing.1985.
5. Hutson M. A. Sports Injuries, Oxford: Oxford University Press. 1996.
6. Kupria, Werner. Physical Therapy for Sports, Philadelphia: W.B. Saunders Com. 1995.
7. Mellion, Morris B. Sports Injuries and Athletic Problems, New Delhi: Surjeet Publications. 1996.
8. Mottram, David R. Drugs in Sports, London: Routledge. 2004.
9. Norris, Chritopher M. Sports Injuries, Oxford: Butterworth Heinmann. 1997.
10. Pandey P. K. and Gupta L. C. Outline of Sports Medicine, New Delhi: Jaypee Brothers. 1987.
11. .Pandey P. K. Know How? Sports Medicine, Jalandhar: A. P. Pub. 1985.
12. Porter, Stuart. Tidy's Physiotherapy, Oxford: Buterwort-Heinemann. 2003.
13. Satpathy G.C. Sports Medicine and Exercise Science, New Delhi: Isha Books. 2005.
14. Sherry, Eugele and Bokor, Des. Sports Medicine, London: GMM Ltd. 1997.
15. Southmayd, William and Hoffman, Marshall. Sports Health, Ludhiana: Kalyani Publishers.1998.

B.P.E –IV PAPER – XVII

CORRECTIVE PHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT 1 - INTRODUCTION

Definition of corrective Physical Education history and objectives.

UNIT II - MESSAGE

General principles in giving messages, Classification of Message manipulation and their therapeutic uses; Stocking manipulations; Effleurage Stroking Proper; Pressure manipulation; Kneading Petrissage, Friction, Percussion;(Tapotement) Hacking, Clapping, Beating, Pounding, Shaking Manipulations; Shaking Vibration; General Centre –indications of massage-Physiological effects of massage

UNIT III - EXERCISE THERAPPY

Importance of Relaxation; Classification of therapeutic movements; passive movements – relaxed, forced, active Movements – Assisted, free, Resisted Isotonic Isometric, Isokinetic

Physiological effects of active and passive movements – Manual muscle strength assessment – Progressive Resistive Exercise, Fundamental positions- Lying Sitting, Standing, Kneeling, hanging and their derived positions – techniques, advantages, disadvantages, and uses

Organisation of corrective class (Group Therapy) and its advantages.

Aqua Therapy

Need and importance

Benefits of Aqua therapy

UNIT IV - POSTURE AND BODY MECHANICS

Definition and concept of posture – Disadvantages of bad postures – Body types (Somato types)

Tests of posture (Posture Evaluation) Posture Grid – IOWA Posture Test New York Posture Rating Test – Foot Impressions (Pedograph) Examination of Knock Knees & bow legs

Types of postural deviations, their causes and corrective exercises Round shoulder, Kyphosis, Lordosis, Flat(In brief) Scoliosis(In brief) Knock knees, Bow lags, Genu recurvature flat feet

REFERENCE:

1. Adapted Physical Education and Recreation Sherill Claudilethirsedn 1986, William. C. Browe Publishers IOWA , USA
2. Development and Adapted Physical Education Clarke. Harrison H. Clarke David H, Printice, INC, New Jersey,USA
3. The Principles of Exercise Therapy Gardiner Dena. M. Fourth Edn. 1981, D Bell and Hymon ltd. London

B.P.E –IV PAPER – XVIII

MANAGEMENT OF PHYSICAL EDUCATION AND SPORTS

TEACHING HOURS :120

MARKS :75

UNIT I - THE MANAGEMENT PROCESS

Meaning, Importance and Scope of Management in Physical Education and sport; Major Management functions, theories and style of leadership.

UNIT II - MANAGEMENT STRUCTURES FOR PHYSICAL EDUCATION AND SPORT PROGRAMME

The organization and structure of Physical Education and sport at school, college, University, district and state level , Principles and guidance for management organization and structure

UNIT III - FACILITY MANAGEMENT

Play fields – Location, area standard, preparation, layout and maintenance

Gymnasium – Construction, allied, facilities, care and maintenance
Swimming Pool – Construction, Dimensions, marking, filtration and supervision of pool

UNIT IV - EQUIPMENT MANAGEMENT

Need and Importance, list of equipments, types of equipment, criteria of selection, procedure of purchase, store keeping and storing, care and maintenance, repair and disposal, improvisation of equipment.

UNIT V - PHYSICAL EDUCATION PERSONAL AND STUDENT LEADERSHIP

Principles of personal management, personal recruitment and selection, characteristics of physical education teachers and staff cooperation; student leadership, Educational importance selection training and recognition of student leaders.

UNIT VI - BUDGETING AND OFFICE MANAGEMENT

Importance of financial management, the physical education budget – source of financial support; Accounting and petty cash, Importance of efficiency management, office functions and practices

UNIT VII - TIME TABLE AND CLASS MANAGEMENT

Need and importance of time table in physical Education, factors affecting time table, physical education programme and routine functions; effective class management, Planning and preparation, checking attendance and records.

UNIT VIII - PROGRAMME MANAGEMENT

INTRAMURALS : Objective of intramurals, organization of intramurals, units of competition; the programme of activities, prizes and incentives.

EXTRAMURALS : Objectives of extramurals, principles of interinstitutional competitions; management personal of external programme.

UNIT IX - PUBLIC RELATIONS IN PHYSICAL EDUCATION

Need and Importance, principles of public relation; public relation technique and media.

UNIT X - SUPERVISION OF PHYSICAL EDUCATION AND SPORT

Definition, scope and principles of supervision, changing concept of supervision, techniques of supervision.

BOOKS RECOMMENDED

1. Charles A. Bucker, Management of Physical Education and Athletic Programmes, St. Louis, C.V. Mosby Co. 1987.
2. E. Voltmer, A. Esslinger, B.F. McCua and K.G. Tillman, The Organisation and administration of Physical Education Englewood Cliffs, Prentice Hell Inc. 1979.
3. Harold J. Vander Zwag, Sports Management in Schools and Colleges ,Newyorkmacmillan Publishing Co. 1984.
4. Dr. S. Dheer and Radhika Kamala, Organization and Administration of Physical Education, N.Delhi, Friends Publications 1991.
5. Forsyth and Duncan Administration of physical education New York Prentice Hall, Inc. 1951.
6. P.M . Joseph, Organization of Physical Education O.S.A.T. I.P.E. Kandivali Bombay, 1956.
7. Charles. A. Busher, Administration of Physical Education and Athletic Programmes, St. Louis, The C.V. Mosby Co. 1975.
8. Hughes and French, Administration of Physical Education New York Ronald Press Co. 1954.

B.P.E –IV PAPER – XIX

BIOMECHANICS

TEACHING HOURS :120

MARKS :75

UNIT I - INTRODUCTION

Definition of biomechanics

Importance of biomechanics in physical education and sports

UNIT II- Application of mechanical concepts force

Definition of force

Principles of force application

Principles of force absorption

Motion

Definition of motion

Types of motion

Newton's laws of motion and their application in sports.

UNIT III - Aerodynamics

Projectile

Definition of projectile

Factors influencing trajectory of projectile

Optimum conditions of projection

Spin

Definition of spin

Types of spin

Effect of spin on a ball moving through air

Effect of spin on a ball rebounding from surface

UNIT IV - Lever

Definition of lever

Classes of lever

Arithmetical levers

Angle of pull

UNIT V - Equilibrium

Definition of equilibrium

Types of equilibrium

Factors affecting equilibrium

Role of equilibrium in sports

Buoyancy

Centre of Gravity

UNIT VI - Mechanical Analysis

Walking

Running

Jumping

Throwing

Striking

REFERENCES:

1. Broer, M.R. Efficiency of human movement (Philadelphia: W.B. Saunders Co., 1969)
2. Ramesh and Burke Kinesiology and applied Anatomy (Philadelphia : LeaandFibger, 1967)
3. Marlene J. Adrian and John M. Cooper, Biomechanics of Human Movement Brown & Benchmark Publishers, Iowa, 1995
4. Gerry Carr, Mechanics of sport Human kinetics, 1997

B.P.E – IV PAPER XX

ADAPTEDPHYSICAL EDUCATION

TEACHING HOURS :120

MARKS :75

UNIT I:Introduction to Adapted Physical Education

- 1.1. Definition of disabling conditions
- 1.2. Physical Education for persons with disabilities
- 1.3. Benefits of physical education for students with disabilities
- 1.4. Recreational sports opportunities
- 1.5. Competition opportunities
 1. Special Olympics
 2. Paralympics

UNIT II: Classification of disability

- 1.1. Physical disabilities
- 1.2. Mental retardation
- 1.3. Visual impairment
- 1.4. Hearing impairment

- 1.5. Behavioral disorders
- 1.6. Characteristics and functional limitations of the above disabilities

UNIT III : Adapted Physical Education Programme

- 1.1. Guiding principles of adapted physical education programme(AAHPER principle)
- 1.2. Communication with Parents
- 1.3. Parental involvement
- 1.4. Parent Teacher association
- 1.5. Unified sports.

UNIT IV : Facilities and equipment for the disabled

- 1.1. Facilities for Elementary schools, Secondary schools and colleges
- 1.2. Orientation on facilities and equipments
- 1.3. Aids for the disabled and its evaluation
- 1.4. Facilities and equipments for recreation and sport activities

UNIT V : Rehabilitation and Welfare Programme

- 1.1. Importance of adapted programme in Rehabilitation
- 1.2. Functional rehabilitation
- 1.3. Psychological rehabilitation
- 1.4. Government welfare programme – Provision of special rights and privileges for the disabled through legislation
- 1.5. Social welfare programme for the disabled
- 1.6. Mass public education/ awareness programme
- 1.7. Educational approach, service approach and legislative approach

REFERENCES :

1. David Auxter and Jean Pyfer, “Principles and methods of adapted Physical Education and recreation” Mosby college publishing, St. Louis
2. Athur G. Miller & James V Sullivan, “ Teaching Physical Activities to impaired youth” John Wilag& Sons Inc Canada
3. Ronald W. French, & Paul J., “Special Physical Education”, Charles E. Merrics Publishing Co. Edinburch, Ohio.
4. Arthur S. Daniels “Adapted Physical Education” ,Harper & Row Publisher- New York

5. K.E. Park, “ Preventive Social Medicine M/s BanaraidasBhanot Publishers Prem Nagar Jabalpur.
6. John P Winnick, Adapted physical education and sport Human Kinetics USA, 2005
7. Shekar K.C, Adapted Physical Education (khelSahitya Kendra: New Delhi) -2005
8. Gene.A. Logan Adaptations of Muscular Activity
9. Micheal, Handbook of Adapted Physical Education Equipment and its Use
10. Luke.E. Kelly, Adapted Physical Education National Standards

B.P.E – IV PAPER XXI

HEALTH AND FITNESS MANAGEMENT

TEACHING HOURS :120
MARKS :75

UNIT I : HEALTH AND FITNESS MANAGEMENT

- i. Factors influencing healthy life
- ii. Occupational health
- iii. Life style diseases

UNIT II: Energy requirements

- i. Caloric values of food
- ii. Assessment of calorie expenditure
- iii. Recommended nutritional intake
- iv. Nutritional need for different age groups
- v. Sports drinks and other fluid intake

UNIT III : Client Approach

- i. Principles and factors of designing exercise programme
- ii. Designing prescription of exercise programmer for :
 - 1. Active population
 - 2. Differently abled
 - 3. Senior citizens
 - 4. Women during their pre and post natal periods
 - 5. Weight loss
 - 6. Type II diabetics
- iii. Relaxation Techniques

UNIT IV : Establishment and Management of Fitness Centre

- i. Layout of health club/fitness centre
- ii. Procurement of equipment
- iii. Equipment for :
 - A. Strength training
 - B. Cardio
 - C. Recovery unit
 - 1. Equipment management
 - a. Operation
 - b. Maintenance
 - c. Repair

UNIT V- Introduction to Fitness and Wellness

- a. Definition , Concept and need of fitness and wellness
- b. Dimensions of fitness
- c. Components of fitness and wellness
- d. Relationship between health, fitness and wellness
- e. Contemporary concept of Fitness and wellness

UNIT VI : Factors influencing fitness

- d. Anatomical fitness

- e. Physiological fitness
- f. Psychological fitness
- g. Sociological fitness
- h. Environmental fitness

UNIT VII : Methods to develop fitness components

- a. Aerobic
- b. Anaerobic
- c. Functional

UNIT VIII : Nutrition and health

- a. Work, power, energy and its units
- b. Sources of energy
- c. Micronutrients
- d. Food pyramid
- e. Balanced diet

REFERENCE:

1. Carl Evans Platt, Health and Fitness Centres, Fitman Publishing, Long Acre London
2. Parks and Znager, Sports and Fitness Management, Human Kinetics, Champain, illinois
3. Patton, Grantham Gerson and Gegtman, Developing and Management Health & Fitness Facilities
4. Neilsol& Carl Foster ACSMS Health/ Fitness Facility Standards and Guidelines, Human kinetics Books, Champain, Illinois
5. Carl Evans Platt, Health and Fitness Centres, Fitman Publishing, Long Acre London
6. Parks and Zarger, Sports and Fitness Management, Human Kinetics, Champain, Illinois
7. Patton, Grantham Gerson and Getman, Developing and Managing Health & Fitness Facilities
8. Neilsol& Carl Foster ACSMS Health/ Fitness Facility Standards and Guidelines, Human Kinetics Books, Champain ,Illinois

PART D - SPORTS SPECIALIZATION

Theory for Optional Game- Common for all Games

TEACHING HOURS :120

MARKS :75

UNIT -1

- 1.1. History
Historical development of the game/ sport at national and international levels.
- 1.2. Organization:
 - 1.2.1. National Bodies controlling and their affiliated units
 - 1.2.2. International Bodies controlling sports and their affiliated units
 - 1.2.3. Major National and International competitions.

UNIT – II

1. Officiating and Layout of Play field :
 - 1.1. Rules and their interpretations

- 1.2. Mechanics of officiating
- 1.3. Layout and marketing of play areas

UNIT – III

- 3.1. Classification of Techniques/Skills
 - 3.1.2. Technical/Skill training
 - 3.1.2.1. Preparatory Exercise
 - 3.1.2.2. Basic Exercise
 - 3.1.2.3. Supplementary Exercise.
 - 3.1.2.4. Correction Drills

UNIT - IV

1. Recreational and lead –up activities
2. Tactics and strategy
3. Selection of players/teams
4. Different tactical concepts applicable to the game/sport
5. Tactical training

UNIT – V - Training

1. Systematization of training process for a beginner, intermediate and high performance sports persons.
2. Training methods and means for the development of motor abilities (Strength, Speed, Endurance and Flexibility)
3. Load dynamics (Principles of Training load, distribution of training load)
4. Basic Concept of preparation of training schedules.

UNIT – VI - Planning:

1. Short term long term training plans
2. Periodisation (Prep. Camp & Transition)

Evaluation:

1. General Fitness Tests
2. Specific Fitness Tests
3. Performance and Skill Tests

UNIT – VII - Techniques/Skills : (Part B)

1. Classification of Techniques/skills
2. Technical/skill training

- a. Preparatory Exercise
- b. Basic Exercise
- c. Supplementary Exercise
- d. Correction Drills

Skills Proficiency test (Only sessional) will be based on the Skills taught in the theory

REFERENCES:

1. Bright Charles K. and Herold C. Meyer. “Recreational test and readings” Eaglewood cliff, New Jersey prentice Hall, Inc 1953
2. Ness Wed, M.H. and New Meyer E.S. Leisure and Recreation, New York: Ronald Press
3. VannierMaryhalen , “Methods and Material in Recreation leadership: Philadelphia.” W.B. Saunders company, 1959
4. Planning Facilities for health, Physical Education and Recreation, Chicago, the Athletic institute,1936
5. Recreation areas: Their Design and Equipments, New York: Ronal press 1958
6. KRAN, R.G. Recreation and the schools: New York: Mac Melon Company
7. Shivers.J.S. “Principles and Practices of Recreational services, London: Mac Melon Company 1964
8. Kledienst V.K. & Weston A The recreational sports programme Prentice hall International Ic. London 1978
9. Butter George Introduction to Community recreation (Mc Gram Hill Book Company, 1976)
10. Durbey and Nayak Recreation Reston AP Publishers, Jalandhar
11. Marrow G.S Therapeutic Recreation Reston Publishing Company 1976
12. Kelly J.R. Leisure Prentice Hall Inc. Englewood Cliffs N.J. (1982)

PART D – SPECIALISATION

THEORY AND OFFICIATING

1. TRACK & FIELD

FUNDAMENTAL SKILLS

TRACK EVENTS

1. Starting Technique – standing start Crouch start and its variations, proper use of blocks.
2. Finishing Techniques – Run, Through Forward, Lunging Shoulder shrug.
3. Relays –various patterns of Baton Exchange and understanding of relay zones.
4. Hurdles –Approach, clearance over the Hurdle (Lead leg action, Trail leg action) and recovery.
5. Middle and long distance running.
6. Steeple chase – Approach, clearance, recovery.

FIELD EVENTS

Long jump (hang style and running in the air style) – Approach run, Take off, flight in the air and landing.

7. High- Jump (Straddle technique and Fosbury flop) – Approach run take off, clearance over the bar and landing.
8. Triple Jump - Approach run, take off, hop stop and jump phase (action in the air) and landing.
9. Pole vault – Hand Grip and Pole carry. The run and pole plant, take off, bar clearance and landing.
10. Shot-put- Grip, stance, Glide, release and reverse. ('O' brien style)
11. Discus throw – Grip, stance, preliminary swing, turns, Releases and inverse.
12. Javelin throw – Grip, carry approach run, release and reverse.
13. Hammer throw – Grip, preliminary swing, turns, release and reverse.

RECOMMENDED BOOKS

1. Dybon, Geoffrey, G.H. The Mechanics of Athletics, London : University of London Press Ltd. 1962.
2. Deberly, d. Menneth. Modern Track and field Englewood cliffs: ,N.J. Prentice Hall Inc.
3. Hooks, Gene, Application of weight Training to Athletics, Englewood Cliffs: N.J. Prentice hall Inc. 1962
4. Malhotras, Ashokkumar, A guide to be an Athlete. Krishna Publications, New Delhi 1980
5. Mohan. V.M, Athletics for Beginners. Metropolitan Books, New Delhi.
6. Robinson, Johnson, James and Hirschi, Modern Technique of Track and Field London : Henry Kimpton Publishers 1974.
7. Ken O. Bosen, Track and Field Fundamental Technique, NIS Publications, Patiala.
8. Parachiwale. J, Athletics.

2. GYMNASTICS

UNIT - I

Gymnastics in the system of Physical Education:

Difference kinds of Gymnastics:

- a). Basic Gymnastics
- b). Sportive Gymnastics
- c). Gymnastics for all kinds of sports

GENERAL DEVELOPMENT EXERCISE:

- a). General development exercise with objects
- b). General development exercise without objects

Structural and orderly exercise

UNIT -II

Gymnastic lessons: (45 minutes, 90 minutes, 180 minutes)

Acrobatic exercise: Mobile games:

Variation of applied exercises for Gymnastic lesson.

UNIT – III

CLASSIFICATION OF FREE EXERCISES:

- a) Free exercises with object
- b) Free exercises without object

JUMPS

- a) Simple Jumps
- b) Complex jumps

Practical material on dynamic exercises: Exercises on apparatus.

UNIT IV

Apparatus measurements: Terminology of Gymnastics: Training periods: Various types of Gymnasium halls.

UNIT-V

Types of Gymnastics: Important competitions at National and International level

Rules of Gymnastics and their interpretations.

UNIT –VI

Organizing and conducting competitions:

Types of Gymnastic competitions, competition attire:

Introduction of code of points 1989 edition.

UNIT –VII

History of Gymnastics:

Distinguished Personalities connected with Gymnastics

Requirements of A, B, C, D parts elements.

UNIT-VIII

Seating of judges in different competitions.

Evaluation of compulsory and optional exercises.

Rhythmic Gymnastics for women.

RECOMMENDED BOOKS

1. Tom De. Cario, Hand book of progressive Gymnastics, prentice Hall Inc. Englewood Cliffs N.J. (1963).
2. John Goodbody, The Illustrated History of Gymnastics, Stanley Paul, London Melbourne, Sydney, Auckland (1976)

3. Tony Murdock and Nikstuart, *Gymnastics*, Franklin Watts, London , New York, Toronto, Sydney (1985)
4. Don Tonry and Barbara Tonry, *Sports Illustrated women's Gymnastics -2*. LippinCot ;& Crowell Publishers, New York (1980) ISBN – 0690-01906 -8 (v.2) pbk.
5. Phyllis Cooper and Milan Trnka, *Teaching Gymnastic skills to Men & Women*, Surjeet Publications, Delhi, India (1962).
6. Anne Williams, *Curriculum Gymnastics, A Teacher's guide to theory and practice*, Hodder and Stoughton, London, Sydney, Auckland, Toronto (1987).

3. AQUATIC SPORTS:

UNIT – I

Introduction to swimming, diving and water polo and their historical development with special reference to India and World.

UNIT – II

Important championships organized at National and Inter-national levels, distinguished personalities related to swimming, diving and water polo

UNIT – III

Fundamental Skills, entry into the pool, floating, bobbing, kicking, reading swimming on the stomach, swimming on the back, standing dive, simple jumping.

UNIT – IV

Swimming strikes – front crawl – body position, legs, arms movements and breathing; back stroke – body position; legs, arms and combined movements and breathing, Butterfly – Dolphin, body alignment, movements of legs and arms movements , breathing and co-ordination.

UNIT –V

Starts and turns of all strokes, front start, back stroke start, front crawl, throw away turn, back crawl, spin turns with head out and head under, Breast stroke and butterfly open turns.

UNIT –VI

Diving – Fundamentals of informal diving and spring board diving ; forward dive – approach,take off, flight and entry into the water (plain, jack knife and saw) backward dive starting position, take-off, flight and entry in the water (short back dive and long back dive)

UNIT – VII

Water polo-fund mental offensive skills defensive skills, tactics (individual and group) goal keeping, various systems of attack and defense.

UNIT – VIII

Rules and regulations of competitive swimming, diving and water polo, officials and their duties ,swimming – pool specifications, construction maintenance and supervision of swimming pool, objective tests, selection of swimmers, short and long term camps.

RECOMMENDED BOOKS

1. Coling Hardy, Handbook for the Teacher of swimming,Felham Books, London (1987)
2. Dr. Gerhard Lwin, Swimming Sportverlag, Burling (1979)
3. John A. Torney Jr. and Robert D. Clayton, Teaching QuaticsSurgeet Publications, New Delhi (1982)

4. HOCKEY

I. History and development

(i). In India (ii). In Asia (iii). In the World

II. Important tournaments held at National and International levels and distinguished persons related to the games.

III. Organization

(i). National Level

(a). National level Federation and its affiliated units

(b). National, States and University level competitions

(c). Coaching Canters

(ii). International level

(a). International Federation and its affiliated bodies

(b). Main International Competitions (Olympic Games, World Cup, Asian Games)

IV. Officiating:

(i). Rules and their interpretation

(ii). Preparation and maintenance of playfield

(iii). Duties and powers of officials

(iv). Specification of equipment and players kit.

V- TECHNIQUE

- a). Rolling
- b). Dribbling
 - c). Push –straight push,reverse push, wrong foot push.
- d). Stopping – Straight stopping, Right, left, side stopping. Reverse stopping
- e). Hit – Straight hit, wrong foot hit, reverse hit, turn around and hit.
- f). Flick – Straight Flick, Reverse Flick, wrong foot flick
- g). Scoop – Straight scoop, push scoop
- h). Tackling –
 - 1. Shadow tackling
 - 2. Lurching tackling
 - 3. Feinting tackling
 - 4. Tackling in retreat
- i). Dodging – Simple dodge
Dodging right and left side of the opponent

- j). Passings –
 - 1. Parallel pass
 - 2. through pass
 - 3. Return Pass
 - 4. Back Pass
 - 5. Cross Pass
 - 6. Deflection

VI. SET PLAYS–

Penalty corner, Penalty stroke corner, 16 yards hit (in attack and defence)

VII. POSITIONAL PLAY

- (a). Goal Keeper
- (b). Full backs
- (c). Half backs
- (d). Forwards

VIII. PRINCIPLES OF ATTACK AND DEFENCE

IX. SYSTEM OF PLAY OR FORMATION

- (a). The pyramid system
- (b). 4-2-3-1-1- system
- (c). 4-2-4-1- system

X.TACTICS

- (a). Individual Tactics
- (b). Group Tactics
- (c). Team Tactics
- (d). Essential of Tactics

REFERENCE RECOMMENDED BOOKS

1. Gansingh and Kukuwalia, Learn Hockey this way, International Hockey Institute, New Delhi (India), 1979.
2. Chris Moore, Discovering Hockey, Partridge Press, London 1988
3. Horst Wein, The Science of Hockey, Felham Books, London. Revised Edition, 1985.

5. BASKETBALL

UNIT-I.

Historical development of games in India, Asia and world organizations, tournaments, compositions of various levels, distinguished personalities, Arjuna Awardees in Basketball, Need and importance of general and specific Motor, Physiological, anthropometric and socio-psychological traits.

UNIT –II.

Offensive fundamentals – player’s stance, ball handling, passing, receiving, different types of passing and drills, static and dynamic receiving, legal stop (stride, scoot), pivoting (front and rear). Dribbling – start and stop of dribble, high low and combination of dribbles.

UNIT – III.

Shooting-Lay-up shot and its variations; set shot, jump shot, hook shot, fade away shot, dunk shot and tip-in, Rebounding, offensive, defensive, Block/Box out, rebound organization (offensive and defensive) two handed and one hand rebound; ; lead-up games and drills.

UNIT – IV.

Rules, regulations and their interpretations; duties of officials, coach and captain, game observation-individual and groups, scouting and statistical analysis of players and matches; objectives and subjective tests.

UNIT-V - OFFENSIVE TACTICS

Individual passing fakes, shooting fakes, dribbling fakes, body and step fakes, Reverse dribble, change of pace and direction different ways of cutting, cross-over dribble. Combined tactics-give and go, criss-cross, pick and roll, splitting the post, post plays, out numbering situations, out of bound situations, jump ball situations, free throw situations, last movement situations.

UNIT –VI

individual defensive – guarding a man without the ball, with the ball, cutter, pivot player, the shooter and overguarding defensive tactics – strict to man, sliding, switching, sandwiching, coupling, fronting.

UNIT –VII.

Offensive team game-fast break attack, freelance offense, passing game, offense against man-man; offense against zone defense, various system of attack, set plays and moves, Defensive game man to man defense, floating man-man; pressing man-man defense, man to man cum zone defense; different systems of zone defense, flexible man-man defense

UNIT-VIII.

Selection of teams and organization of short term camps; teaching and coaching aids and gadgets; lay-out , construction and maintenance of playground, equipment management, precautions and remedial measures

of basketball injuries.

RECOMMENDED BOOKS

1. Abbas Moontasir, Principles of Basketball, Skanda publications, Bombay.
2. Ebert Cheatum, Basketball, W.B. Saunders Company
3. Robert a Fox. The complete Hand book of individual skills, Basketball. Prentice hall, Englewood Cliffs, New Jersey.
4. Paul Stimpson, Basketball. The skills of the game, The Crow-wood Press, Ramsbury, Marlborough, Wiltshires.
5. Roget Haun, Basketball Drills from college coaches, Parket Publishing Co.Inc, West Nyack, New York.
6. Doan Smith, Basketball Multiple Offense and Defense, Prentice Hall, Inc. Engle Wood Cliffs, New Jersey

6. FOOTBALL

- I. Introduction of the game, History and development of the game with special reference to India.
- II. (a) Organization set-up of the game in the world and in India
 - i. Important competitions held at National and International levels.
 - ii. Distinguished players of the game
- III. General techniques. Drills and lead up activities.
- IV. Fundamental factors of Soccer Strategy
 - (a). System of play : Definition Development of the System of play from Heroic Age of Soccer to the present day of total football.
 - (b). Tactics: Definition, Classification ,General tactics, applied tactics- Tactics of attack and defense.
- V. Game Analysis:

- (a). Analysis of the individual game
- (b). Analysis of the collective work
- VI. Rules and their interpretations. Duties of officials, officiating lay out and preparation of the play field

BOOKS RECOMMENDED

1. C .Sanadi, Arpad, Soccer, Budapest; Medicine Konyukloads 1978.
2. The Football Association, Referees ‘Chart and Players’ Guide to the laws of Association Football. London Pan Books (Lat.ed)
3. Hughes, Charles, The Football Association Coaching Book of Soccer. Tactics and skills, London: British Broadcasting Corporation and Mac Donald Queen Anne Press, 1987.
4. MC Getligan, James P. Complete Book of Drills for Winning Soccer, New York: Parket, 1980.
5. Morris, Desmond. The Soccer Tribe, London: Jonathan Cape, 1981.
6. Wade,Allen. The F.A. Guide to Training and Coaching, London: William.H. Einemann Ltd. 1981.
7. The Guinness Book of Soccer. Facts and Feats. Great Britain Guinness Superlatives Ltd. (Latest edition)

7. CRICKET

UNIT-I

- 1.1 History and development of cricket- Bodyline and Ashes Series. HistoricalDevelopment of Cricket in England, Australia, West Indies, South Africa, NewZealand, India, Pakistan, Sri Lanka, Zimbabwe and Bangladesh.
- 1.2 History of Women’s cricket.
- 1.3 History of Indian cricket.
- 1.4 History of One-day cricket
- 1.5 History of World Cup Cricket

UNIT-II

- 2.2 Cricket Controlling Bodies and its Organizational Set up- ICC, MCC and TCCB
- 2.3 Organizational setup, aims and objectives of B. C. C. I.

- 2.4 Standing committees of B. C. C. I.
- 2.5 Major tournaments organized by B. C. C. I.

UNIT-III

- 3.1 Layout and maintenance of the oval.
- 3.2 Dimensions of the field.
- 3.3 Pitch- Types of Pitches and preparation and maintenance of a Turf Wicket
- 3.4 Essential equipments, measurements of equipments.
- 3.5 Teaching Aids.
- 3.6 Warming up, importance of warming up.

UNIT-IV

- 4.1 Fundamental skills-Batting-Basics, Defensive strokes, Attacking strokes, Modern/Improved strokes, running between the wickets and Drills to improve the batting skills
- 4.2 Bowling-Basics, out swinger, In swinger, Reverse swing, Off spin and its variations, Leg spin and its variations and Drills to improve the bowling skills.
- 4.3 Fielding-Ground fielding. (Stationary, on the run and Slide stop) Catching. (High, Low, Flat and Reflex Catching)
- 4.1.1 Wicket Keeping-Drills to improve the wicket keeping skills.

UNIT-V

- 5.1 The laws of cricket with interpretations.
- 5.2 Officials in Cricket
- 5.3 Umpires and their duties.
 - a. Duties before the match
 - b. Duties during the interval.
 - c. Duties after the match.
- 5.4 Signals, Unofficial and additional signals

UNIT-VI

- 6.1 Captaincy: Qualities of a good captain.
- 6.2 Duties of captain
- 6.3 Symptom of bad captaincy.

UNIT-VII

- 7.1 Criteria for selection of players at various levels.

- 7.2 Warming up, conditioning and training process.
- 7.3 Training methods.
- 7.4 Planning a Coaching camp: Annual, Weekly and daily plan.

UNIT-VIII

- 8.1 Psychological qualities of cricket player.
- 8.2 Method of developing psychological qualities. Psychological Skills Training.

UNIT-IX

- 9.1 Injuries in cricket, prevention and first aid.
- 9.2 Nutrition for cricket players.

UNIT-X

- 10.1 Modern Trends in Cricket
- 10.2 Cricket Vocabulary, Award winners and Records.

REFERENCES

1. A Handbook of Practical Training in Cricket, Mumbai: Jaico Publishing House, 1998.
1. Bose, Mihir. A History of Indian Cricket, New Delhi: Rupa& Co. 1990.
2. Bradman, Donald. The Art of Cricket, London: Robson Books. 1998.
3. Coaching Youth Cricket, Australian Cricket Board, New York: Human Kinetics. 2000.
4. Elliot, Bruce et.al. The Science of Fast Bowling, Mumbai: Marine Sports. 2001.
5. Rundell, Michael. The Dictionary of Cricket, London: George Allen &Unwin. 1985.
6. Smith, Tom. New Cricket Umpiring and Scoring, London: Weidenfeld& Nicolson. 2004.
7. 8.Stewart, Alec. The Young Cricketer, London: DK. 1999.
8. 9.The Laws of Cricket (2000 Code 2nd Edition 2003) Issued by BCCI.

9. Tyson, Frank. Learn Cricket with Frank Tyson, New Delhi: Rupa& Co. 2002.
10. Wills Book of Excellence: Cricket, Hyderabad: Orient Longman Limited. 1987.
11. Wisden Cricketer's Almanack 2006.
12. Cox, Richard. H. "Teaching Volleyball" ,New Delhi, Surjeet Publications.
13. Viera, Barbara Laun "Teaching Volleyball, steps to success champaign, Illinois : Leisure Press 1989.
14. Nicholes ,Keith : "Modern Volleyball for teacher, coach and player " London: Lepus Books, 1978.
15. Cozansky, Sue " Championship Volleyball Techniques and Drills" NewYork. Parker Publishing Co. Inc 1983.
16. Nicholas, Keith " Volleyball the skills of the game" Great Britain: The crowood Press , 1986.

8. VOLLEYBALL

- I. History and development of Volleyball at world, Asia and India. Organisational set up of the game at international, national and state level. Important competitions at various levels. Distinguished players of the game.
- II. Rules and interpretations. Duties of officials.
- III. Fundamental techniques: Volley pass, dig pass, smash, service, block, rolls & dives and its variations.
- IV. Tactics and systems of Play: Individual and group tactics. Systems of service reception, system of attack, systems of defence etc.
- V. Analysis of the game and scoring, lead-up games, Arjuna Award Winners, layout, construction and maintenance of grounds; teaching aid and gadgets.

- VI. Selections of team and organization of short term camps. Tests and measurements.

BOOKS RECOMMENDED

1. Cox, Richard H, "Teaching Volleyball", New Delhi, Surjeet publications.
2. Viere, BarbareLaun, "Teaching Volleyball, steps to success" Champaign, Illinois : Leisure press 1989.
3. Nicholas, Koith, "Modern Volleyball for teacher, coach and player", London: Lepus books, 1978.
4. Cozansky, Sue "Championship Volleyball Techniques and Drills" New York, Parker Publishing co.inc. 1983
5. Nicholas, Keith "Volleyball the skills of the game" Great Britain: The Crowood Press, 1986.

9. HANDBALL

1. Introduction of the game and historical development with special reference to India
2. Important tournaments held at National and International levels
3. Rules and their interpretations
4. Duties of officials
5. Fundamental skills
 - 5.1 passing and receiving techniques
 - 5.1.1 Overhead pass
 - 5.1.2 Push pass
 - 5.1.3 Wrist pass
 - 5.1.4 Bounce pass
 - 5.1.5 Behind the back pass
 - 5.2 Ball Reception techniques
 - 5.2.1 catching at chest level

- 5.2.2 Catching below waist
- 5.2.3 Catching at sides
- 5.2.4 Catching at head height
- 5.2.5 Catching in the air
- 5.3 Dribbling
 - 5.3.1 High Dribbling
 - 5.3.2 Low Dribbling
- 5.4 Shooting
 - 5.4.1 Straight shots
 - 5.4.2 Jump shot long
 - 5.4.3 Jump shot high
 - 5.4.4 Wing shot
- 6. Positional play in attack & defense- basic positions and physical & motor qualities required for each position
- 7. Drills and Lead-up games

Note: A minimum of two drills to be taught for each skill

BOOKS RECOMMENDED FOR STUDY

1. Clanton Reita and Dwight Marry Phyl, Team Handball steps to Success, Human Kinetics publications, 1997.
2. Sykes and Pennycook, Olympic Handball, Stanley publications, London, 1991

10. KHO-KHO

1. Introduction of the game
2. Origin, history and development of the game
3. Important tournaments:
State, National & International level
4. Rules of the game
 - a. Interpretation and its application
5. Fundamental skills
Running, Chasing, Pole turning, Dodging and Faking
 - A. Chasing skills
 - Giving kho (technique of giving kho-kho)
 - i. Proximal method
 - ii. Distal method
 - Moving on the cross lanes and attacking
 - i. Quadruped method
 - ii. Biped

- iii Combination
 - Advance kho & its variation
 - Pole turning and its variation
 - Pole drive: Running dive with fake and dive
 - Dive: Running, steady, side dive
- B. Dodging skills
 - a. Chain game
 - i. Single chain (Six single up)
 - ii. 3-6 up
 - iii. 1-3-3-1 up
- 6. Initial and subsequent positions of the defender
- 7. Ring game
 - a. Long ring and shot ring game
 - b. Front ring, back ring game with fake
- 8. Counter action for advance kho
- 9. Order of running
- 10. Rules of the game
- 11. Duties of officials

Note: A minimum of two drills to be taught for each skill

REFERENCE:

1. Selvaraj.V.N,Hand book for Kho Kho Officials, Selvaraj PET, Printo Hi-Tech :Sivakasi

11. KABADDI

1. Introduction of the game
2. History and development of the game
3. Ancient and modern forms of kabaddi
4. Important tournaments held at National & International level
5. Rules, regulations and its interpretations
6. Offensive skills
 - a. Structure of raid, raiding foot work types of raiding work, changing directions during raid.
 - b. Touches
 - i. Hand touch types of hand touch
 - ii. Toe touch types of toe touches
 - iii. Kicking, types of kick

- c. Raiding tactics
- i Pursuit, types of attacks
- 7. Defensive skills
 - a. Fielding: Basic positions and movement of the anties
 - b. Individual holds
 - i. Ankle hold, wrist hold
 - ii. Thigh hold, knee hold
 - iii. Wrist hold, blocking
 - c. Chain holds
 - i. Corner chain hold (Left and Right)
 - ii. Centre chain hold (Left and Right)
 - iii. Following chain hold
 - iv. combination holds
- 8. System of play
 - a. Seven players, six players
 - b. Mobile system
 - c. Fixed system
- 9. Counter skills
 - a. Escape from the ankle hold knee hold and thigh hold
 - b. Escape from the chain hold
- 10. Defensive and offensive raid
 - a. Raid on different number of anties& situations

BOOKS RECOMMENDED FOR STUDY

1. E. Prasad Rao, modern coaching in kabaddi, DVS publications, New Delhi, 1994
2. The complete handbook on kabaddi, E. Prasad Rao, Jagadamba publication Andhra Pradesh, 2004
3. Rules of Kabaddi published by AKFI (2007), L.B stadium, Hyderabad