

Bachelor of physical education

(B.P.Ed)

ORDINANCES

The B.P.Ed (Bachelor of Physical Education) is a teacher education course and shall be of one year duration. Candidates shall appear in the final examination at the end of each academic session.

REQUIREMENT FOR ADMISSION

Norms and standards prescribed by NCTE /UGC/State Government or any other competent body for admission to B.P.Ed. Course shall be followed.

The nature of B.P.Ed course is such that it involves vigorous physical activity as such physically handicapped persons are not allowed to take admission in this course. It is also compulsory for the women candidates to sign an undertaking that they will discontinue the course at once if they get pregnant during the course of study.

Note:- Institution cannot lower the admission requirements set by above mentioned agencies. However they can raise it on the basis of availability of candidates.

ADMISSION PROCEDURE:-

Admission to B.P.Ed course shall be done on the basis of Entrance test, which will consist of:-

1. Physical fitness test- Modified AAPHERD Test shall be conducted for this purpose. (Details of test items and norms are attached with syllabus).
2. Sports achievements in last three years (on the basis of certificates).
3. Written test and Interview.

Entrance test MUST BE conducted by those experts who are eligible to be appointed as examiners in B.P.Ed COURSE.

MEDIUM OF INSTRUCTIONS

Hindi / English

THEORY PAPERS

There shall be six theory papers, each paper shall carry 100 marks, out of which 20 marks shall be the sessional.

PRACTICAL

Practical of this course shall be in THREE categories. (Total shall be of 800 Marks)

- A). Proficiency in games and sports (300 Marks)
- B). Teaching ability (300 Marks)
- C). Allied areas (200 Marks)

A). Proficiency in games and sports:- It shall have THREE parts:-

- (i). Athletics.
- (ii). Gymnastics & Yoga
- (iii). Game of Specialization

Each part shall carry 100 marks, out of which 20 marks shall be sessionals.

B). Teaching ability:- It shall have THREE parts:-

- (i). General Lesson Plan (on play grounds)
- (ii). Special lesson Plan (on play grounds)
- (iii). Theory lesson Plan (in classroom).

Each part shall carry 100 marks, out of which 20 marks shall be sessionals. Candidates are required to take 5 practice lessons for each part separately. Sessionals marks will be awarded on the basis of their performance in practice lessons.

C). Allied areas:- This shall also have THREE parts:- (Total 200 Marks)

(i). Performance in Games (other than specialization, 80 Marks)

(ii). Camping (20 Marks)

(iii)(A) Test & Measurement Practical (50 Marks) & (B) Computer Practical (50 Marks)

(i). Performance in games (other than specialization):- it shall include all the games prescribed in the syllabus except those covered under Category 'A' (Proficiency in sports). This part will carry 80 marks and shall be assessed internally.

(ii). Camping:- Students are required to attend a Leadership training camp of at least 8 days duration. This part shall carry 20 marks and it shall be assessed internally.

(iii) (A) Test & Measurement Practical:- (50 Marks) :- It shall include the procedure of marking play grounds, taking measurements- (time, distance, weight, blood pressure, body temperature, pulse rate, percentage of body fat, respiratory rate, anthropometrics measurements of body parts). Candidates is required to demonstrate the markings and measurements etc practically.

This part shall carry total 50 marks, (External 40 marks and 10 marks sessional)

(iii)(B) Computer practical:- (50 Marks) Students are required to give practical examination on the topic studied under computer application in theory Paper VI.

This part shall carry total 50 marks, (External 40 marks and 10 marks sessional)

THE PASSING MARKS STATUS IN EXAMINATION

i). Ist Division – 60% and above marks.

ii). IInd Division – 48% and above but below 60%.

iii). IIIrd Division – 36% and above but below 48%.

Note:- (a). Aggregate marks, 36% are essentials to pass the examination. **(b).** Over all division shall be calculated adding both theory and practical marks.

BACK PAPER / IMPROVEMENT

Candidates can re-appear as private candidates (Exempted students) in theory / practical examination.

EXAMINERS

The examiners both in theory and practical must be from the teaching department of B.P.Ed./M.P.Ed. and have atleast 3 years experience of teaching the subject at the B.P.Ed level or above level. Three (3) external examiners for proficiency in sports (one for each part), THREE external examiner for teaching ability (one for each part) and one external examiner for Test & Measurement practical and Computer Practical along with ONE internal examiners for each part of proficiency in sports, teaching ability and Test and Measurement & Computer Practical separately shall form the panel of examiners in the final year examinations.

COURSE OF STUDY

Theory papers

i). History and Foundations of physical education.

ii). Anatomy, Physiology and Kinesiology in physical education.

iii). Management in physical education.

iv). Coaching and officiating in games and sports.

v). Health education and recreation in physical education.

vi). Statistics and Computer Application in physical education.

Practical:-

A). proficiency in games and sports:-

- i).** Athletics.
- ii).** Gymnastics and yoga
- iii).** Game of specialization (any one game) Badminton, Basketball, Cricket, football, Handball, hockey, Kabaddi, Kho-Kho and Volleyball.

B). Teaching ability

- i).** General Lesson Plan
- ii).** Special Lesson Plan
- iii).** Theory Lesson Plan

C). Allied areas

- i).** Performance in games other than specialisation
- ii).** Camping
- iii).** Test and Measurement practical & Computer Practical

Paper-I

History and Foundation of Physical Education

Unit-1

Chapter-I

Physical Education in India before Independence

Indus valley civilization, Vedic period, Epic period, Buddhist period, medieval period.

British Period:- YMCA College of Physical Education, Madras, Christian College of Physical Education, Lucknow, H.V.P Mandal, Amravati.

Chapter-II

Physical Education in India after Independence

Governing bodies & Policies of Physical education and sports

I.O.C., I.O.A., S.N.I.P.E.S., S.A.I., U.G.C., N.C.T.E., N.A.A.C.

Policies:- Kothari Commission, New Education Policy, National Policy on sports, Sports policy of Uttar Pradesh Govt.

Chapter-III

Schemes & Awards related to Physical Education & Sports

Rajkumari Amrit Kaur coaching scheme, N.P.E.D., N.S.O., Special Area Games

Arjuna Award, Dronacharya Award, Rajiv Gandhi Khel Ratna Award, Maulana Azad Trophy, Laxman Award, Rani Laxmibai Award.

Unit-2

Chapter-I

History of Physical Education in Ancient Greece, Ancient Rome, Denmark, Germany, Sweden and U.S.A.

Chapter-II

Ancient Olympic Games:- Historical background, Awards, Decline & termination of games.

Modern Olympic Games:- Revival, charter, aim, objectives, spirit, motto, torch, flag, opening and closing ceremonies

Chapter-III

Asian Games, Commonwealth Games, SAF Games, Afro-Asian Games:- Historical background, Its role for regional co-operation and peace.

Unit-3

Chapter-I

Concept of Education:- Meaning, definition, aim and objectives

Physical Education:- Meaning, definition, scope, aim and objectives

Physical Education as an art and science

Philosophical principles:- Idealism, Naturalism, Pragmatism

Chapter-II

Biological Principles:-

Growth and Development:- meaning, definition, principles, factors affecting(heredity & environmental)

Difference between growth and development

Anatomical and physiological difference between male and female

Age:- Chronological , Anatomical, Physiological and mental & their implication in physical education

Chapter-III

Sociological foundation:- Introduction

Society, marriage, community, custom, folkways

Social control group (primary & secondary, crowd & public)

Social stratification:- Social class and caste.

Unit-4

Chapter-I

Psychological foundation:- Introduction

Individual differences, attitude, aggression, anxiety and attention

Body types:- Kretchmer & Sheldon's classification.

Personality:- meaning, definition, characteristics & dimensions (physical, mental, social & emotional)

Factors affecting personality.

Chapter-II

Motivation:- Meaning, definition, importance, types (extrinsic & intrinsic)

Method of motivation

Chapter-III

Learning:- meaning, theories and laws

Learning curve:- Stages & how to overcome plateau

Transfer of training (Positive, Negative & zero) , theories, factors affecting.

Paper-II

Anatomy, Physiology and Kinesiology in Physical Education

Unit-1

Chapter-I

Anatomy:- Meaning, need and importance

Cell:- definition, meaning, structure, function, shapes and Cell division.

Tissue:- Definition, classification, structure, functions and types

Blood:- Composition, function and coagulation

Chapter-II

Skeletal system:- Function, types of bones,

Major bones of the body and their location

Chapter-III

Muscular system:- Types muscles, structure and function of skeletal muscle

Major muscle of the body and their locations

Unit-2

Chapter-I

Physiology:- Meaning, need and importance

Essential properties of living organism

Chapter-II

Structure and functions of:- Respiratory system, circulatory system
and digestive system

Chapter-III

Brief introduction to structure and functions of nervous system, endocrine system, excretory system and reproductive system

Unit-3

Chapter-I

Exercise Physiology:- Meaning, need and importance

Physiological concept of health and fitness

Second wind, oxygen debt, cardiac output, stroke volume

Chapter-II

Effects of exercise on respiratory system,

Circulatory system and muscular system

Chapter-III

Brief introduction to nerve control of muscular activity

Energy production for muscular activity

Unit-4

Chapter-I

Kinesiology:- Definition, fundamental and applied, aim and objectives, need and importance

Axis and Plane

Joints of the body, types of joints and their movements

Chapter-II

Proximal and distal attachments (origin & insertion) and actions of the following muscles.

Pectoralis major, Deltoid, biceps, triceps, latissimus dorsi, rectus abdominis, sartorius, gastrocnemius, quadriceps & hamstring group of muscles

Types of muscle contraction, angle of pull, all or none law, reciprocal innervations.

Chapter-III

Mechanical principles of motor movements:- Need and importance

Levers and their application to human body

Equilibrium and its role in games and sports

Force and its application in sports activities

Motion:- Laws of motion and its application in sports activities.

Paper-III

Management in Physical Education

Unit-1

Chapter-I

Management:- meaning, definition, importance, philosophy, aims & objectives, Principles of management.

Functions of Management:- planning, organising, administration and evaluation,

Schemes of Organization:- School, College, University. Uttar Pradesh Govt latest orders regarding the finance and composition of games committee in Colleges.

Chapter-II

Supervision:- meaning, definition, principles of supervision. Qualities of physical education supervisor. Techniques of supervision:- visitation – types and process, demonstration – meaning and importance, conference, bulletins, in-service program, personal counselling.

Chapter-III

Public relation:- definition, need, importance, principles, techniques. Methods of promoting physical education (demonstration, play day, exhibition)

Unit-2

Chapter-I

Teaching methods:- meaning, types and factor affecting it. Presentation technique:- meaning and factors affecting it. Teaching aids in physical education. Command and formations:- meaning and types. Lesson plan:- types, objectives and various parts.

Chapter-II

Leadership:- meaning, definition, qualities of a leader. Qualification, qualities of physical education teacher.

Organisation and conduct of competition. Intramurals & Extramurals

Tournaments (fixture):- knockout, league, combination and challenge type, their merits and demerits

Chapter-III

Facilities & Equipments:- care & maintenance, principles of purchasing equipments, Budget:- meaning, definition, preparation, principles of making budget. Office management:- meaning and principles

Unit-3

Chapter-I

Evaluation:- meaning, definition, principle, nature and scope

Tests & Measurement:- meaning, definition and need

Criteria for the selection of a test, Types of test:- subjective and objective

Classification of pupil, importance and methods of classification.

Chapter-II

Test of games (skills):-

Hockey:- Harbans singh field hockey test

Football:- McDonald soccer test

Volleyball:- Brady volleyball test

Basketball:- Johnson's basketball test

Badminton:- Miller Volley test

Chapter-III

Tests for fitness components:-

Strength:- Kraus Weber test

Speed:- 50meter sprint

Leg Power:- Sargent jump

Abdominal endurance: Sit-ups

Flexibility:- Sit and reach test

Agility:- Shuttle run (4x10yards)

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Unit-4

Chapter-I

Test for organic function:- Harvard Step test, Cooper's 12 minute run/walk test

Test for motor fitness:- AAPHER & JCR test

Chapter-II

Measurement of nutritional status:- Pelidisi formula

Measurement of percentage body fat:- skin fold measurement

Chapter-III

Assessment of health related physical fitness

Assessment of coordinative ability

Paper-IV
Coaching and Officiating in Sports and Games

Unit-1

Chapter-I

Coaching:- Meaning & definition

Sports training- meaning, definition, aims, objectives,

Characteristics and principles.

Chapter-II

Coach:- Qualification, qualities, characteristics and responsibilities

Warming up, Conditioning, Cooling down --- Meaning, benefits and significance

Fitness:- Meaning and components of physical fitness, motor fitness and health related physical fitness.

Chapter-III

Load and Recovery:- Meaning, factors-intensity & volume, judgement of load.

Over load:- Meaning and tackling over load

Recovery:- Phases, means and factors affecting recovery

Unit-2

Chapter-I

Training methods:- Development of components of physical fitness and motor fitness through following training methods (continuous method, interval method, circuit method, fartlek/speed play and weight training)

Chapter-II

Development of Techniques and Tactics

Psychological preparation of team and individual sports persons

Chapter-I

Concept of different training periods:- Periodisation-Preparatory, Competition and Transition periods and their aim and objectives.

Preparing coaching schedule – Yearly and Short term.

Unit-3

Chapter-I

Officiating- Meaning and principles

Reasons for poor officiating and their remedies

Chapter-II

Duties of officials:- Athletics, Badminton, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Kabaddi, Kho-Kho and Volleyball.

Chapter-III

Marking of Track/Field/Court/ground for following: - Athletics, Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho and Volleyball.

Unit-4

Chapter-I

Rules and their interpretations of events in Athletics.

Chapter-II

Rules and their interpretations of larger area games:- Cricket, Football, Handball and Hockey.

Chapter-III

Rules and their interpretations of small area games:- Badminton, Basketball, Kabaddi, Kho-Kho and Volleyball.

Paper-V
Health Education and Recreation in Physical Education

Unit-1

Chapter-I

Health:- Meaning, definition of W.H.O, Importance

Health education:- Meaning, definition, aim, objectives, scope, principles and importance.

Hygiene:- Meaning, definition, personal hygiene.

Chapter-II

Posture- Meaning, types, Importance of good posture, causes of bad posture

Prevention and remedial measures.

Postural deformities- kyphosis, lordosis, scoliosis, knock-knee, bow-leg flat foot and their corrections.

Chapter-III

Obesity- Meaning, general problems, health related risk factors, factors of obesity.

Over weight- meaning, causes, prevention and remedial measures.

Unit-2

Chapter-I

Sports Injuries:- Common sports injuries (sprain, strain, contusion, abrasions, laceration, fractures and their causes, prevention and treatment. P.R.I.C.E

Chapter-II

Communicable diseases, malaria, typhoid, viral hepatitis (A,B,C) T.B, S.T.D, viral fever (dengue, chickengunya) causes, prevention and treatment.

Pollution- (Air, water and noise) meaning, causes and remedial measures.

Chapter-III

Ergogenic Aid:- meaning and its classification-Nutritional, Physiological, Mechanical, Pharmacological.

Doping:- Meaning, concept, prevention and World Anti Doping Agency, Prohibited doping substances.

Drug Abuse, Taking illegal drugs, Illegal taking of legal drugs

Sanitation:- meaning, types and importance

Unit-3

Chapter-I

Nutrition-Meaning and functions. Balanced diet-meaning, Energy fuel, Daily energy requirements, Carbohydrate, fats, proteins, vitamins, minerals and water.

Malnutrition and adulteration

Chapter-II

Massage:- Definition, meaning, effects-physiological and psychological.

Massage manipulations.

Therapeutic Exercises:- importance, Classification- Active Movement (free, assisted, reassisted), Passive Movement (relaxed & forced)

Rehabilitation:- meaning and importance

Chapter-III

Therapeutic modalities:- cold therapy, infrared, contrast bath, wax bath.

First Aid:-Meaning, definition, Principles. First aid in drowning, snake bite, burns, electric shock.

Unit-4

Chapter-I

Recreation:- Meaning, definition, characteristics, aim, objectives, types, Significance in modern society, agencies providing recreation.

Chapter-II

Camping (outdoor education), Meaning, aim, objectives, importance, types, organization, factors affecting, educational values of camp, leadership training.

Chapter-III

Play:- Meaning, definition, theories, significance of theories of play in Physical Education.

Paper-VI

Statistics & Computer Application in Physical Education

Unit-1

Chapter-I

Meaning of Statistics, Parametric and Non parametric statistics. Need and Importance of Statistics in Physical Education.

Chapter-II

Data: Nominal, Ordinal and Interval. Frequency Tables, Meaning, Construction and uses. Graphical representation of Data: Meaning, Uses and Techniques.

Chapter-III

Percentiles: Meaning, Uses and Calculations.
Z score, Sigma scales and calculations.

Unit-2

Chapter-I

Measures of Central Tendency: Meaning, Uses and Calculation from Frequency tables. Measures of variability- Standard Deviation, Quartile deviation and its calculations

Chapter-II

Population and sample, Sampling techniques. Normal Probability curve, Properties. Correlations- Meaning and uses, product moment and rank order correlation

Chapter-III

Comparison of means:- meaning and uses, t-test (dependent & independent), Calculations of t-test. F-test meaning and uses, One way Analysis of Variance and its calculations. Post-hoc tests- meaning and uses.

Unit-3

Chapter-I

Meaning, need and importance of information and communication technology (ICT). Application of Computers in Physical Education

Chapter-II

Operating systems, Major components of operating system, Hardware and software. Concept of an active window, Icons, Buttons and Task bar,

Chapter-III

Creating Folders, Copying and Moving items, Deleting items, Creating Shot-cuts on desktops.
Ms Word, Formatting, Inserting, Creating, Bullets, Numbers, Spell Checks and Printing.

Unit-4

Chapter-I

Ms Excel's basics, Editing Cells Contents, Applications of Simple Formula on physical Education related examples, Useful Functions with reference to Physical Education.

Chapter-II

Power Point presentation, Making of slides with reference to officiating and scoring in competitions

Internet: Network, World Wide Web (www). Browsing, search engines,

Chapter-III

Electronic mail, Information retrieval, Websites,

Hyper text transfer protocol (http).

Computer crime and Computer ethics.

PRACTICAL- B.P.ED

A. Proficiency in games and sports

(i) Athletics :-

Races (Sprints, hurdles, relays, middle distance & long distance)

Techniques:- Start, finish, baton exchange, clearance of hurdle, step rhythm in hurdle race, pace running.

Throws:- Shot Put, Discus Throw and Hammer Throw. Technique of throws-Grip, Delivery stance, Delivery action/movements, the release and reverse.

Jumps:- Long Jump, High jump and Pole vault. Technique of jumps- approach run, take off, flight phase, movement in the air and landing

(ii) Gymnastics and Yoga:-

Gymnastics:- Floor exercises, Parallel bar, Horizontal bar, Pommel horse, Vaulting horse, Roman rings, Uneven bar, Balancing beam where ever applicable to Men and Women.

Yoga:- Asanas- Suryanamaskar, Bhujangasana, Paschimottasana, vajrasana, tadasana, sarvangasana, halasana, dhanurasana, chakrasana, gomukhasana, matsyasana, padmasana, mayurasana, shalabhasana, sheershasana.

(iii) Game of Specialisation:- Any one game from the following:- Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Volleyball.

Badminton:- Service - high lob and short service, Over head toss, back hand toss, back hand drop, under arm clear, smash, drive. Basic tactics- offensive and defensive.

Basketball:- Ball handling & Player's stance, Passing and Receiving, Chest pass, bounce pass, overhead pass, Shooting-lay up shot, set shot, jump shot, Dribbling- High, low and reverse, Pivoting, Parallel and stride stop, Offensive and defensive rebounding, Offense and defense.

Cricket:- Batting-forward & backward defense, straight drive, square cut, pull. Bowling:- Medium pace, good length ball, in swing and out swing, leg break, off break, googly. Fielding- catching, long barrier. Wicket keeping, Basic tactics- offensive and defensive.

Football:- Kicking-Instep kick, push pass, full volley, half volley, lofted kick. Trapping- by sole of foot, by instep of foot, by thigh by chest. Heading, Skills of taking throw-in, corner kick, penalty kick. Basic tactics- offense and defense .

Handball:- Ball handling and passing(base ball, wrist, side reverse, bounce) Receiving, Dribbling, Shooting- overhead, jump shot, dive shot. Faking, Basic tactics- Offense and defense.

Hockey:- Hitting, stopping, dribbling, flick, scoop & its variations. Skills of taking penalty corner, penalty stroke, goal keeping, Basic tactics- Offensive and defensive.

Kabaddi:- Catches (wrist, knee, ankle and thigh catch). Raiding skills (touching with hand, leg thrust, front kick, sidekick, mule kick. Basic tactics- offensive and defensive.

Kho-Kho:- Chasing – giving kho, getting up, pole dive, diving. Running- single and double chain, ring formation. Basic tactics- offensive and defensive.

Volleyball:- Service- under arm, tennis, floating and jump service. Passes- volley pass, dig pass, back roll volley, side roll dig one handed. Spike- straight spike, spike on high ball and low ball. Blocking- single and double block. Basic tactics- offensive and defensive.

B. Teaching Ability

1. General lesson :- Teaching the light apparatus activities such as dumb-bell, lezium, wands, Indian clubs, hoops, bamboo drill, bharatiyam exercises, pyramids etc are to be included.
2. Special lesson :- Teaching any skill or technique or its parts in the following games are to be included. (Athletics, gymnastics, Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho and Volleyball).
3. Theory lesson: It is class room teaching from the physical education theory syllabus of C.B.S.E or I.C.S.E or U.P Board. For reference a model syllabus for theory lesson is attached separately.

C. Allied Areas

(i). Performance in games (other than specialization):-

Proficiency in eight games from the list of nine games (one game shall be the Game of specialization) shall be tested.

(ii). Camping:- Students are required to attend a Leadership training camp of at least 8 days duration.

(iii) (A) Test & Measurement Practical:-It shall include the procedure of marking play grounds, taking measurements-

(time, distance, weight, blood pressure, body temperature, pulse rate, percentage of body fat, respiratory rate,

anthropometrics measurements of body parts). Candidates is required to demonstrate the markings and measurements etc practically.

(iii)(B) Computer practical:- (50 Marks) Students are required to give practical examination on the topic studied under computer application in theory Paper VI.

SYLLABUS FOR THEORY LESSON

Physical Education and Sports:- Meaning, aim and objective , need and importance, scope, relationship of physical education with general education. Different courses in physical education and coaching profession , important institution.

Growth and Development :- Meaning , principles, difference growth and development , stages (prenatal, postnatal, infancy, childhood, adolescence adulthood, old age), factors affecting growth and development(heredity and environmental), psychological characteristic of an adolescent , problems of an adolescent, role of physical education and sports in solving the problem. Chronological age, anatomical age, physiological age and mental age.

Olympic Games:- historical background, modern Olympic game, importance, aims of Olympic movement, Olympic spirit and ideals, motto, Olympic flag and torch.

Fitness:- meaning, physical fitness, factors influencing physical fitness (warming up and cooling down) and health related fitness. Benefits of exercises, effect of exercises on various systems in brief (muscular, respiratory circulatory & digestive) fatigue, second wind, oxygen debt

Health education:- meaning, importance, principles, scope , dimension of health(physical, mental, social, emotional, spiritual, vocational) Communicable diseases:- HIV/Aids, hepatitis(A,B,C), Tuberculosis, Malaria Rabies(Systems transmission prevention and cure)

Pollution:- Air water sound(causes effects and remedial measures)

Drugs, Alcohol and tobacco

Family plan:- concept , purpose and methods

Nutrition:- meaning and importance, balance diet, functions, factors affecting, daily energy requirement and elements of a balanced diet. Carbohydrates, proteins, fat, vitamins, minerals and water their function, source and daily requirement

First aid:- meaning, definition and purpose, types , principles, functions. First aid for drowning , snake bites, contusion , abrasion, laceration, fracture

Posture:- meaning, type, importance of good posture, causes of poor posture, preventive and remedial measure of poor posture.

Hygiene:- concept, importance, care of skin, mouth, nails and clothing

Obesity:-meaning,causes disadvantages and physical education in prevention.overweight.

Recreation:-meaning,aim and objective,types,importance.

Personality:-meaning,definitions and characteristics of personality.

Motivation:-meaning,types of motivation(intrinsic and extrinsic)

Sports injuries:-types,overuse,common sports injuries (introduction causes,treatment) strain,sprain,contusion,abrasion,laceration,doslocation and fractures.

Anatomy and physiology:-meaning and importance

Cell-definition,structure and function

Tissue-meaning,types,structure and function

Bones- types,structure and function

Joints-kinds of joints,structure,function

Muscles-types,structure,functions

Training methods:-circuit training,fartlek,interval training,weight training(isometric and isokinematic exercise)

Play theories:-surplus energy,recreation,relaxation,recapitulation,self-expression and instinct.

Learning:-meaning,theories and laws,learning curve,transfer of learning.

Rehabilitation:-concepts,need and scope.

Massage:concepts,types,benefits

Leadership:-concepts,need and scope and importance

Teaching methods:-meaning,types,factors affecting.

Teaching aids:meaning,types,factors affecting.

Presentation techniques:-meaning,types,factors affecting

Time table:-definition,importance and principles

Intramural and extramural:-concepts,need,scope,organization and importance.

Camping:-meaning,types,organization and importance

Classification of pupil's:-meaning,methods,need and importance