

M.Sc. Sports Coaching

FIRST SEMESTER

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

THEORY PAPER – I - SPORTS ANTHROPOMERTY

Paper Code: SPCM1101T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Kinanthropometry of athletes.

- a. Introduction, definition and scope of Kinanthropometry
- b. General consideration of Anthropometry and Sports Anthropometry
- c. Application of Anthropometric data in sports
- d. Analysis within and between sports.

2. Kinanthropometric Measurements and Scope

- a. Landmarks and their importance.
- b. Anthropometric Techniques and their importance
- c. Kinanthropometric Measurements and their scope
- d. The O-scale system and sports.

3. Body Proportions and Indices

- a. Body proportions and Body Indices
- b. Height Weight Ratio and importance in sports.
- c. Ponderal Index and its importance
- d. Application of Phantom stratagem in Sports

4. Human Growth and its importance in Sports

- a. Introduction, definition and Scope of Human Growth
- b. Growth at Adolescence
- c. Distance and velocity Growth curves
- d. Factor effecting growth – Hormonal, Genetical and Environmental

5. Physiological Maturation

- a. Introduction, definition and scope of Physical Maturation
- b. Decimal age and concept of physiological maturity.
- c. Various measures of maturity- Morphological age, Dental age , Skeletal age and Secondary Sex Characteristics
- d. Age based competitions and the maturity status

6. Adult Height Predictions

- a. Method of Height Prediction
- b. Application of Height Prediction in sports
- c. Height prediction and talent selection
- d. Application of RUS method of height prediction

Section –B

7. Athlete's Body composition and performance

- a. Introduction, definition and general consideration of body composition
- b. Approaches to the study of the body composition, conceptual models

8. Methods to evaluate Body Compositions

- a. Surface anthropometry-
 - i.) Matieka Method,
 - ii.) Drink water tactic for estimation fractional masses,
 - iii.) Density estimation from skinfold

- b. Water displacement method and under water measurement
- c. Roentgenogram method

9. New Techniques in Body Composition

- a. Bio-electrical impedance methods, MRI, DXA, CAT
- c. Effects of exercise on body composition

10. Somatotype

- a. Introduction
- b. Historical prospective of somatotype
- c. Sheldon's method of somatotype

11. Heath – Carter method of somatotyping

- a. The method
- b. Technique of Heath- Carter anthropometric Somatotype
- c. Computer equation to calculate Endomorphy

12. Somatotypes of Athletes

- a. Somatotype Distribution
- b. Somato chart and Somato plot
- c. Classification of somatotypes
- d. Somatotype in different Sports

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – I - SPORTS ANTHROPOMETRY

Paper Code: SPCM1101P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Skeleton and its important features for anthropometric measurements.
2. Land marks
3. Anthropometric Instruments
4. Sports specific anthropometric measurements
5. Estimation of muscle mass
6. Estimation of bone mass
7. Estimation of fat mass
8. Calculation of Somatotypes by using Heath-Carter Method
9. Plotting of Somatotypes 10. Prediction of adult heights.

Books Recommended

1. Physique and Selection of Sportsmen- A Kinanthropometric study by H.S. Sodhi and L.S. Sidhu – Punjab Publisher House , Patiala
2. Human Biology- An Introduction to Human Evolution, Variation growth and Ecology by G.A. Harrison, J.S. Weiner, J.M. Tanner, N.A. Carnicot- Oxford University Press
3. Sports Anthropometry H.S. Sodhi
4. Kinanthropometry- S.P singh & P. Malhotra
5. Human Body composition by Gilbert B. Forbes
6. Human Body Measurements – Concepts and Applications by S.P Singh & Promila Mehta

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – II - PHYSIOLOGICAL ASPECTS OF EXERCISE
PAPER CODE: SPCM1102T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

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Instructions for the Candidates

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Section A

1. **Meaning, Nature and Scope of Exercise Physiology**
 - a) Relevance of exercise physiology in the enhancement of performance.
2. **Muscular system and Exercise**
 - a) Concept of Motor unit
 - b) The concept of muscle fiber types and its importance in sports performance
 - c) Effects of specific training on muscle fiber type
 - d) Muscle force velocity and power velocity relationship
 - e) Proprio-receptors, Receptors in muscles, Joints and tendons.
 - f) Role of muscle spindle
 - g) The stretch reflexes and importance of Golgi tendons organs and Pacinian h) corpuscles

i) Fatigue-causes and sites (Local, muscular fatigue), Methods of recovery from j) fatigue.

3. Cardiovascular system and Exercise:

- a) Functional organization of CVS and Blood
- b) Effect of specific Aerobic and Anaerobic training
- c) Changes in pressure and resistance in blood flow during exercise.
- d) Autonomic and cortical control of the cardiovascular system during exercise.

4. Respiratory system and Exercise

- a) Functional organization of RS
- b) Adaptive changes in the respiratory system to exercise and regular physical activity.
- c) Effect of exercise in augmenting in the cellular respiration levels.
- d) Ventilation during rest and exercise.
- e) Static and Dynamic Lung Volumes and importance.
- f) Second wind and Stitch in the side.
- g) Control of Pulmonary ventilation during exercise.

5. Nervous system and exercise

- a) Introduction, Motor Skills, Neural control of voluntary movements
- b) Role of cerebellum, Learning specialized motor skills
- c) Mechanism of action of the ANS during rest and exercise

6. Physiological determinants in physical performance

- a) Ventilatory threshold & lactate threshold
- b) Physiological changes at the anaerobic threshold
- c) Anaerobic threshold as performance marker
- d) Importance of enhanced lactate tolerance and performance
- e) Maximum Oxygen Uptake Capacity, the early concept of VO_2 max and performance
- f) Factors controlling VO_2 max
- g) Running economy

Section B

7. The Process of Recovery

- a) The alactate and lactate phases of recovery
- b) The concept of Oxygen debt and Excess post exercise oxygen consumption
- c) Factors controlling recovery process
- d) Replenishment of energy stores during recovery
- e) Removal and fate of lactic acid
- f) Restoration of phosphagen stores and myoglobin stores
- g) Role of massage, steam and sauna bath in recovery, and practical guidelines.

8. Environment and Exercise

- a) Regulation of body temp during exercise
- b) Body heat and exercise, Heat disorders
- c) Special measure to counter dehydration and mineral loss
- d) Physiological and behavioral adaptation
- e) Exercise in the cold, wind chill, acclimation to cold.

9. Measurement of Work, Power and Energy

- a) Energy, work and power, ergometry
- b) Direct and indirect estimation of energy expenditure
- c) Measurement of energy cost of exercise during actual activity by telemetry
- d) Concept of MET

10. Exercise and Training for Health and Fitness

- a) The exercise prescription. Basic concepts

11. High Altitude Training and Performance

- a) Physiological basis of altitude training
- b) Immediate physiological responses at altitude
- c) Long term changes in altitude training.
- d) Advantages and Disadvantages of altitude training
- e) The oxygen dissociation curve at altitude.

12. Physiological Effects of Sprint and Endurance Training

- a) Changes in skeletal muscle following endurance training and Sprint training
- b) Effect of training on neural structures
- c) Changes in oxygen transports system due to sprint and endurance training
- d) Factors influencing effects of training: intensity, Frequency, Duration
- e) Genetic influences.

13. Exercise and Training in Females

- a) Body size and composition
- b) Structural differences
- c) Effect of weight training
- d) Physical trainability and physiological changes following training,
- e) Guidelines for female participation

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Paper Code: SPCM1102P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Measurement of heart rate during rest, steady state, exercise, graded exercise on field
2. A comparison of indirect methods to estimate/predict the VO₂ max: Queen's college test
3. The Astrand-rhyming step test
4. Cooper's 12 min run test
5. Measurement of Physical Work Capacity
6. Measurement of Anaerobic Threshold (AT), Lactate threshold
7. Direct assessment of oxygen consumption

RECOMMENDED BOOKS

1. Sports physiology by E.L.FOX:W.B.Saunders co.,Philadelphia.
2. Text book of Medical Physiology by A.C.Guyton:W.B.Sanders co., Harcourt Brace.
3. Human Physiological work capacity by Shephard:Cambridge Univ., Press, NY.
4. Olympic book of Sports Medicine by Dirix et al:Blackwell publ.,London.
5. The autonomic nervous system& Exercise by J.Hillary Green: Ms.chapman & Hall Ltd.,London.

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M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – I SEMESTER – I

THEORY PAPER – III - STATICS AND COMPUTER APPLICATION IN SPORTS

PAPER CODE: SPCM1103T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

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SECTION-A

1. **Statistics:** Definition, aims (functions), scope, limitations and distrusts of Statistics.
2. **Collection of Statistical data :** Definition of Statistical data, primary and secondary source of data: methods of collecting primary data such as direct personal interviews, indirect and oral interviews, information from correspondents, mailed questionnaire method and schedules sent through enumerators; precautions in the use of secondary data

3. **Sampling:** Meaning of population and sample, principles of sample surveys, characteristics of good sample, Merits and limitations of sampling over population study, size of the sample, Types of classification – Geographical chronological, qualitative and quantitative; sampling & non sampling errors.
4. **Classification & Tabulation of data :** Meaning and objectives of classification and tabulation, Types of sampling techniques-simple random sampling, stratified sampling, systematic sampling, sequential sampling, cluster sampling, multistage sampling, purposive sampling, difference between classification and tabulation.
5. **Diagrammatic Representation of data:** Significance of diagrammatic representation, types of diagrams i) Line diagram, ii) Bar diagram; and iii) Pie-diagram.
6. **Frequency distributions:** Meaning of a single score and frequency, formation of a discrete and continuous frequency distribution tables, graphical representation of a frequency distribution – Histogram, Frequency Polygon, Frequency Curve and Ogives (Cumulative Frequency Curves).
7. **Measures of Central Tendency :** Objectives of averaging, requisites of a good average, types of average (i) Arithmetic Mean; (ii) Median; (iii) Quartiles; (iv) Mode; (v) Harmonic Mean; their relative merits, which average to use.
8. **Measures of Dispersion (Variability) :** Dispersion – meaning, significance; its measures – Range, Quartile Deviation and standard Deviation, their relative merits and uses, Coefficient of Variation (C.V.)
9. **Probability (Chance):** Meaning, Probability of an Event and its calculation, Random variables, Binomial distribution.

SECTION-B

10. **Normal Distribution:** Principle of normal curve (distribution), properties of Normal Curve, Standard Normal Curve, finding area under normal curve, conditions for normality.

11. **Correlation:** Bivariate data, meaning of Correlation, and its causation. Methods of studying correlation through scatter diagram. Correlation coefficient, its computation from ungraphed data
(Karl Pearson's coefficient of correlation), its interpretation and properties (without proofs), Rank correlation and its coefficient.
12. **Tests of Significance :** Testing of Hypothesis, Errors in Testing of Hypothesis, Level of significance, Degrees of freedom, Standard Error,
Confidence Interval, one tailed and two tailed tests, sampling distribution of t and F (without proofs), their assumptions and conditions of validity. Tests of significance for large samples – single mean, difference of means and difference of standard deviations, Tests of significance for small samples-single mean, difference of means, difference of variances, correlation coeff.
13. **ANOVA :** Sum of squares, one way analysis of variance, pairwise Comparison among means
(Scheffe's Test), two way analysis of variance, Analysis of covariance.
14. **SPSS Software**
15. **NVivo Software**

SUGGESTED READINGS

1. S.P.Gupta - Statistical Methods
2. Verma J.Prakash - A Text Book on Sports Statistics
3. David H.Clarke & H.Harrison Clarke - Research Processes in Physical Education
4. Chauncey A.Morehouse &-Statistical Principles and Procedures with Applications for Physical Education - G.Alan Stuff

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M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – I SEMESTER – I

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-A- ATHLETICS)

PAPER CODE: SPCM1104T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

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Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

Key performance indicators (KPI) in jumps

- Common technical & biomechanical aspects in jumps
- Tests and test norms
- Test norm for junior athletes
- Load Dynamics
- Designing long term plan with using KPI

Biomechanical analysis of Long Jump Hang and Hinge Kick Technique

- Duration of different phases

- Physiological & Psychological aspects

Biomechanical analysis of Triple jump

- Optimization of Phase Ratios in Triple jump
- Physiological & Psychological aspects

Biomechanical analysis of High jump

- Mechanics of Rotation over the bar
- Hip shoulder axis at key positions
- Aspects of Speed flopper and power flopper

Biomechanical analysis of Pole vault

- Difference between Ridge pole vaulting and Fibre glass vaulting
- Physiological & Psychological aspects
- Hip shoulder axis at key positions

SECTION-B

3. Triple Jump: Kinematical aspects of triple jump.

- Biomechanical analysis of triple jump technique
- Physiological and psychological aspects triple jump
- Women technique in triple jump

4. Physical parameters of elite

- Long Jumper
- Triple Jumper

5. Principles of teaching, coaching and training

- Analysis of Height weight index of elite sprinters Long jumper & triple jumper
- Cross sectional investigations of speed, speed endurance, strength, stride lengths and stride frequency of sprinters
- Tests/norms
- Performance evaluating tests of different abilities of elite sprinter long jumper at triple jumper.

6. Training of Long Jump:

- Organization of systematic and control training plan (Periodization).
- Development of different motor abilities required to train young at elite long jumper
- Control of Load between two micro-cycles
- Systematic technical training of different phases of Long Jump.
- Demand profiles of elite Long Jumper

8. Training of Triple Jump:

- a. Systematic and technical training of Triple Jumpers
- b. Periodization
- c. Planning and training of individual athlete
- d. Organization and recognition of micro meso and mega cycles
- e. Percentage distribution of different motor abilities around the year
- f. Demand profiles of elite triple Jumper

9. Plyometric training :

- a. Historical development
- b. Principles of plyometric training
- c. Types of plyometric training
- d. Correct procedure (Do or Don'ts)
- e. Talent identification tests for sprinter & jumper
- f. Psychological preparation of different athletes
- g. Importance of Plyometric training in the development of potential sprinter at jumper

Coaching Ethics:

- a) What are values and ethics
- b) Understanding personal and Professional values
- c) Maintaining an ethical coaching practice
- d) Ethical issues in sports coaching

Communication skills:

- a) Understanding Communication
- b) Communication Style
- c) Types of communications
- d) Communication with Players
- e) Communication with Match officials
- f) Communication with parents

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-A: ATHLETICS)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

Training of Horizontal jumps:

The annual periodization of different motor abilities

- Development of strength Long jumper
- Adaptation phase
- Maximum strength phase
- Conversion phase
- Maintenance phase

Organization of micro, Meso and macro cycles

Concept of efficiency for the Link of training

Control at organization of load index.

Training of Triple jump:

- Annual periodization of different motor abilities around the year
- Systematic development of strength of Triple jumper
- Control and organization of load dynamics
- Systematic technical training of a Triple jumper during different phases of training.

Training of High jump /Pole vault

- Annual periodization of different motor abilities
- Different stages of strength development of a young High jump and Pole vaulter

- Kinematical analysis of elite Vertical jumpers
- New trends of the training of High jump and Pole vaulter
- Organization of meso, micro and mega cycle
- Demand profile of elite Pole vaulter
- Specific technical training of elite Pole vaulter
- Talent identification
- Tests and evaluation of performance.

RECOMMENDED BOOKS

1. Geoffery H.G.Dyson : The Mechanics of Athletics
Hodder and Stoughton, London, Sydney, Auckland, Toronto, 1977.
2. Ken Doherty : Track and Field Omnibook. Tafnews Press, P.O. Box 296
Los altos 940 CA 22 USA.
3. F.Wilt and T.Ecker : International Track and Field for coaching Encylopaedia.
Parker Publishing Company Inc.West Myack, N.York, 1970.
4. Howard Payne : Athletes in action, Palhm Books Ltd., 44 Bedford Square,
London, WBCIB 3 DU 1985.
5. Jess Jarver : Middle Distances, Tafnews Press (1979).

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M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-B- BASKETBALL)
PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
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SECTION A

1. Critical analysis of developmental trends in Basketball with regards to :
 - a) Ground facilities and equipment (for training and competitions)
 - b) Techniques and their variations (used in different levels of competitions)
 - c) Rules and regulations their interpretations and practical application (Till rule six – Article 41)
2. Critical analysis of Basketball techniques with regards to kinesiological Biomechanical aspects involved and advance teaching skills for elite players:

- a) Player's stance and Ball holding
- b) Passing and receiving (use of two balls, advance passing drills)
- c) Shooting (relocation shooting drills, variation in lay ups e.g. euro step, flats)
- d) Rebounding (techniques and tactics – offensive & defensive) (advance drills to improve rebounding)
- e) Body technique
- f) Dribbling (with two balls, with tennis ball, dribble with two ball and pass and advance
Drills to improve dribbling)
- g) Defense: advance defensive drills to improve individuals

SECTION-B

- 3. Teaching and training of individual Basketball players :
 - a) Aims, objectives and main tasks of sports training in Basketball
 - b) Main features and significance of sports training in Basketball.
- 4. Methodical phases for the development of techniques in Basketball
 - a) Phases/stages of technique development :
 - Phase-I Acquisition of the technical element
 - Phase-II stabilization of the technical element
 - Phase-III Application of the technical element in the actual game Condition
 - b) Means and methods of developing techniques

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching

– Communication skills:

- Understanding Communication
- Communication Style
- Types of communications
- Communication with Players
- Communication with Match officials
- Communication with parents

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PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-B: BASKETBALL)

Paper Code: SPCM1103P

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Exam. Time: 02 Hours

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Credit: 02

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1. developing demonstration ability in newly developed individual techniques:
 - a) Progressive method:
 - i) Acquisition phase
 - ii) Phase of fine coordination
 - iii) Stabilization phase
 - b) Developmental drills for all three stages for systematic development
2. Controlling of training load during technique, teaching and training
3. Developing mental pre-requisites through teaching and training of techniques

RECOMMENDED BOOKS

1. The theory and Science of Basketball by D.Siedentop and J.M.Cooper Leo & Faiber, Philadelphiat 1975.
2. Basketball concepts and technique by B.Cousy and E.Power, Boston, 1976.
3. Basketball by Dellon, Boris, Herchoc and S.Konzag, Sportverlag, Berlin 1984.
4. Scientific Principles of Coaching by John Bunn, Practice Hall Publication, New Jersay, 1986.
5. Practical modern Basketball by J.R.Wooden, New York, 1980.
6. Basketball – The complete Hand Books of Individual Skill by Robert A.F. Prentice Hall, Eaglewood (Cliffs, New Jersy, 1980)
7. Basketball – The skills of the game by Pall Stinpson, The Crowood Press, 1986.

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M.SC. SPORTS COACHING

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PART – I SEMESTER – I

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-C- FOOTBALL)

PAPER CODE: SPCM1104T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

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SECTION-A

1. Evolution of the Game:

- a. Forms of games, which were played in ancient times
- b) in far East, Rome and England by our ancestors
- a. Historical susceptible with reference to dates and events
- b. Significant events and dates in the development history of the game.
- c. Birth of passing game
- d. Formation of F.A. (1863) and its contribution in the development of the game.

2. Critical analysis of Laws, Amendments, Interpretations and Refereeing:

- a. Interpretations and critical analysis of the laws of the game (Law No.1 to 11)

- b. Amendments in Laws and their interpretations and effect on the game of Football
 - c. Co-operation between Referee and Assistant Referees
 - d. Role of IVth official in football
 - e. Match Commissioner
3. Role of Coach in Football
- a) Accountability
 - b) Credibility
 - c) Team building/preparation
 - d) Coaching Language

SECTION-B

- a) Analysis of Recent World Cup Competition in relation to :-
 - a. Demands of Physical fitness
 - b. Technical and tactical development : Ball Control, Passing, Dribbling, Striking the ball
 - c. Tactical innovation : Style of play
 - d. Requirements for higher performance : Technical, tactical and decision making ability
- b) Organizational Aspects of Competitions in Football :
 - a. Technical conduct of the competition :
 - Drawing of fixture Knock out and league cum knock out
 - Essential requirement of competition – field of play and equipment required
 - b. Formation of Committees; their powers & duties :
 - Referees Committee
 - Disciplinary Committee
 - Medical Committee
 - Organizing Committee - Press Committee - Board of appeal etc.

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
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- **Communication skills:**
 - Understanding Communication
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PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-C: FOOTBALL)

Paper Code: SPCM1103P

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1. Teaching, training and coaching of techniques with ball- All kicking techniques
2. Teaching, training and coaching of body technique- Technique without ball
3. Training in motor abilities, general and specific
4. Minor games leading to the development of specific skills
5. Teaching practice
6. Refereeing

SUGGESTED READINGS

1. Heddergott, K.H. New Football Manual, Limpert Verlag, Humberg, 1976.
2. Palli Janos, Modern Football training, draft reproduction, Leipzig, 1968.
3. Wade allen. The F.A. Guide to training and coaching, London, 1976.
4. Batty Fric, Coaching Modern soccer attack, Faber and Faber, London, 1980.
5. Glanville, Brain, The History of World Cups, Times Newspaper Ltd.
6. Huges Charles, Soccer Tactics and skills, British Broadcasting Cooperation, London, 1980.
7. Widdows, Richard, The Soccer Book, Octopus Books Ltd., London, 1981.
8. Widdows, Richard, Soccer Technique and Tactics, The Hamlyn Publishing Ltd., London, 1982.
9. Bellg, A Tactical soccer for players and Coaches “The Team A.S. Barnes and Company, New Jersey, 1978.

10. The FIFA/COCA-COLA International Academy Part-II, Team : Preparation related to competition football. The FIFA/COCA-COLA World Football Youth Academy. The Football Association's Referee's Chart and Player's Guide to the Laws of the Association Football 1990-91, Pan Books, London and Sydney.
11. Relly T.Clarys J. and Stibble A., Science of Football I & II Vol.1993.
12. Latest FIFA Magazines.
13. FIFA world Cup Report 2022

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – I SEMESTER – I

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-D- GYMNASTICS)

PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

1. Critical Analysis of Historical Development of Gymnastics :
 - A. Critical Analysis of Development of Gymnastics in the world
 1. Critical Analysis in Ancient period
 2. Critical Analysis in Middle ages
 3. Critical Analysis in Renaissance period
 4. Critical Analysis in 18th and 19th century

5. Critical Analysis of in 20th century
- B. In India
 1. Before 1950
 2. After 1950.
2. Origin, Structure and Functions of :
 - a) F.I.G (Federation of International Gymnastics)
 - b) AGU (Asian Gymnastics Union)
 - c) GFI (Gymnastics Federation of India)
3. Organization and system of conducting various competition (Technical Regulations)
 - a) Technical Committees, their formation and Functions
 - b) Age and qualification criteria for Olympics
 - c) Competitions conducted by F.I.G. and their format
 - d) Rules and Qualification criteria for Competition, I,II, III and IV.
4. Development of code of points
5. Judging panel, its formation and functions in MAG,WAG, RG
 - a. Qualifications, rights and responsibilities of President of MTC/WTC
 - b. Qualification, rights and responsibilities of chair person
 - c. Qualification, rights and responsibilities of Judges of Jury 'D'
 - d. Q\ualification, rights and responsibilities of Judges of Jury 'E'

SECTION B

1. Latest changes and amendments in code of points (COP) for Men Artistic Gymnastics
2. Evaluation of compulsory Exercises in MAG (Sub Juniors)
3. Evaluation of generalities in MAG
 - a) Evaluation of difficulty
 - b) Evaluation of execution (Exercise presentation)
 - c) Evaluation of special requirements (Element group) (EGR)
 - d) Evaluation of Bonus points
 - e) Evaluation of optional exercises on :

a) Floor	b) Pommel	c) Rings
d) Parallel bars	e) Horizontal bar	f) Vaulting

4. Technical Aspect and Methodical Approach to the problems of successful teaching of different basic elements on various apparatus :
 - Technique and teaching steps of any movement on Floor, Pommel, Rings, Vault, Parallel bars, Horizontal bar, Uneven bars, Beam.
5. Safety Measures in Gymnastics :
 - Spotting, Security and Self Security and their basic handling
 - Kinds of injuries in Gymnastics and their basic handling
 - Various reasons of injuries and their prevention in Gymnastics.
6. Women training in gymnastics
 - a) Aims And Objectives
 - b) Principles
 - c) Procedure

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching
- **Communication skills:**
 - Understanding Communication
 - Communication Style
 - Types of communications
 - Communication with Players
 - Communication with Match officials
 - Communication with parents

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-D: GYMNASTICS)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Developing presentation ability of new techniques
2. Teaching and training of advance skills on all apparatuses.
3. Planning of training motor abilities (general and specific)
4. Construction and evaluation of different motor abilities (General and specific motor abilities tests)
5. Construction and evaluation of skill tests
6. Officiating
7. Observation analysis and registration of performance :
 - a) in training
 - b) in competition
8. Self development programme – conditioning programme for self.

SUGGESTED READINGS

1. Code of Points Men by FIG Switzerland, 2022 Edition.
2. Code of Points Women by FIG Switzerland, 2022 Edition.
3. Code of Points Rhythmic Gymnastics by FIG Switzerland, 2022 Edition.
4. Technical reglements by FIG Switzerland, 2022 Edition.
5. Fundamentals of Men's friends Gymnastics by Dr.G.S.Bawa, Friends Publication, 1991.

6. Women and Sports Performance by Dr.Kalpana Debnath, Friends Publication, 1991.
7. Salmela J.H.Petiot B., Hosizaki T.Blain, Psychological nurturing and guidance of gymnastic talent, Canada Sports Psyche, Edition,1987.
8. Coper Phyllis, Trnka Milan Teaching Gymnastic skills to men and women, New Delhi, Surjit Publications, 1982.
9. Men's Gymnastics by Fukushima & Wrio Russel. Faber and Faber London, 1980.
10. Men's Gymnastics coaching manual by Readhead Liovd. Springfield's book Ltd., 1987.
11. Biomechanics of Sports Techniques by James G.Hay
12. Symbol language by FIG, Switzerland, 2001 edition.
13. Training Manual Gymnast by Dr.G.S.Bawa, NIS Publication

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-E- HOCKEY)
PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

1. Evolution of Hockey

Origin of the game, significant events, development of hockey, birth of modern hockey, formation of International Hockey Federation, Formation of Indian Hockey Federation, Functions of various Federations and Associations.

2. Various international Hockey competitions such as Olympic Games, Asian games, World Cup, Asia Cup etc.

3. Analytical study of the rules of the game, Amendments in the rules and their impact on the game, laying and maintenance of hockey fields (natural and artificial).

SECTION B

4. Mechanics of Officiating

Duties of Umpires and table officials, Umpires signals, Aims of Umpiring, Principles of Umpiring, clothing and equipment of Umpires, Positioning of Umpires, use of Whistle.

5. The Coach

- a) Training of young players
- b) Coaching at different age groups
- c) The coaching of basic and advanced skills
- d) The Coaching organization

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching
- **Communication skills:**
 - Understanding Communication
 - Communication Style
 - Types of communications
 - Communication with Players
 - Communication with Match officials
 - Communication with parents

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-E: HOCKEY)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Warming up – general and specific
2. Fitness training – general and specific
3. Teaching and training of technique (artificial surface)
4. Organisational of tests for evaluation of physical fitness 5. Teaching and training at tactics
 - a) Individual tactics
 - b) Group tactics
 - c) Team tactics

SUGGESTED READINGS

1. Bushan Niket, Dhyan Chand, The legend lives on, Wiby Eastern Limited, New Delhi, 1992.
2. Singh, Gian, Hockey preparing for the future, Safdarjung Enclave, New Delhi, 97.
3. Mark Tronson, Esanda's World Hockey, International Field Hockey Publishing Co., Australia, 1984.
4. Edited, Junior Umpire Coach, Australia Hockey Association In., Rothman's Foundation National Sports Division, 1987.
5. Ali, S.Rifaquat, World Cup Hockey, Jugal Printing Press, 1990
6. Kapur, M.L., Romance of Hockey, Workers Printing Press, Ambala Cantt.
7. Training Manual, Hockey, NIS Publication, 2001.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-F- SWIMMING)
PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

1. Technique of Front Crawl:
 - a) Body position, Lateral, Frontal, Head Position, Body roll
 - b) Arm Action; pull action, Recovery action
 - c) Kick (Flutter); upward, downward
 - d) Breathing; Inhalation, Exhalation, timing, frequency
 - e) Stroke co-ordination
2. Technique of Front Crawl flip turn
-Approach, Flip, touch, push, glide, initial kick, initial pull and arm action, the regular stroke

3. The technique of Back Stroke.
 - a. Body Position; Lateral, Frontal, Head Position, Body roll
 - b. Arm Action; pull action, recovery action
 - c. Kick; upward, downward
 - d. Breathing: Inhalation, Exhalation, timing, frequency.
 - e. Stroke co-ordination
4. Technique of Roll over back stroke turn.
 - Approach, Roll, Flip, touch, push, glide, initial kick, initial arm action, regular stroke

SECTION B

1. Technique of Butterfly Stroke.
 - a) Body Position, Frontal, Lateral, Head Position, Hip Position.
 - b) Arm Action; Pull action, Recovery Action
 - c) Kick (The Dolphin Kick); upward, downward
 - d) Breathing; inhalation, exhalation, timing, frequency
 - e) Stroke co-ordination
2. The technique of Butterfly turn
 - Approach, Touch, Turn, Push, Glide, Initial kick, initial arm action, Regular stroke.
3. Technique of Breast Stroke:
 - a) Body Position; Frontal, Lateral, Head Position, Hip Position
 - b) Arm Action: Pull action, recovery action
 - c) Kick; The whip kick
 - d) Breathing; inhalation, exhalation, timing, frequency.
 - e) Stroke co-ordination

4. Technique of Breast Stroke Turn:

- Approach, Touch, Turn, Push, Glide, Hourglass pull and kick, initial stroke to break water surface, regular stroke.

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching

– **Communication skills:**

- Understanding Communication
- Communication Style
- Types of communications
- Communication with Players
- Communication with Match officials
- Communication with parents

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-F: SWIMMING)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Acquiring demonstration ability of Modern technique through practice in all swimming strokes, starts and turns.
2. Tests of technique to be conducted
3. Tests of performance to be conducted (for an Olympic event and 400M. individual medley)
4. Ground Exercises and Gymnasium work.

SUGGESTED READINGS

1. Counsilman, J.E.: "The Science of Swimming" Pelham Books Ltd., Bedford Square, London, 1977.
2. Counsilman, J.E.: "Doc Counsilman on Swimming". Pelham Books Ltd., Bedford Square, London, 1981.
3. Counsilman, J.E.: "Competition Swimming Manual for Swimmers and Coaches". Pelham Books Ltd., Bedford Square, London, 1982.
4. The New Science of Swimming: Consilmen J.E, Consilman Brinan E.
5. David; G.T.: "Swimming Steps to success". Leisure Press, Champaign Illcons, 1978.
6. Hogg, J.M.: "Land conditioning for Swimmers" E.B. Publishing Co., Great Britain, 1969.
7. Maglicho, E.W.: "Swimming Faster". Malyfield Publishing Company, Palo Alto, California, 1982.
8. Maglicho, E.W.: "Swimming Even Faster". Magfield Publishing Company, Palo Alto, California, 1990.

9. Singh,H: “Sports Training: General Theory and Methods”.NIS Publication, Patiala,1984.
10. Singh,H: “Science of Sports Training” D.V.S.Publication, New Delhi,1991. 11. FINS Hand book : “Constitution and Rules: Swimming, Open Water Swimming, Diving, Water Polo, Synchronized Swimming, Masters, Facilities, Medical and Doping” FINA Hand Book,2009 , S.F.I.India, 2002.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)
PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION – A

1. **Critical analysis of development trends in modern volleyball (men and women):**
 - a) Facilities and equipment (for training and competitions)
 - b) Performance in various skills.
 - c) Physical characteristics of players.
 - d) Techniques and their variations (used in different level of competitions, development of new techniques)
 - e) Tactics and their variations (used in different competitions, development of new tactics.)
 - f) Rules (amendments, newly introduces ones, their interpretations, implications and effect on coaching, training and performance analysis).

2. **Analysis of various volleyball skills with regards to kinesiological and biomechanical aspect involved:**
 - a. Serving (float serve, tennis serve, jump float serve, jump spike serve)
 - b. Passing (dig pass and its variations, falling techniques- forward dive, sprawl, role and pan cake)
3. **Methodical phases for the development of technical skills in volleyball:**
 - a. Methods of teaching and training techniques.
 - b. Innovation of teaching and training aids/ equipments.

SECTION- B

1. Physical and psychological training:

- a. Principles and methods of developing general motor abilities.
- b. Principles and methods of developing specific motor abilities.

2. Establishing the demand profile of general and specific motor abilities for national level volleyball player.

3. Officiating and organization of competitions:

- a. Critical study of the rules of the game.
- b. Organization of different level of competitions.
- c. Competition formula for various international competitions.
- d. Principles and mechanics of officiating.
- e. Suggestions to improve the standard of officiating.

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching

– Communication skills:

- Understanding Communication
- Communication Style
- Types of communications

- Communication with Players
- Communication with Match officials
- Communication with parents

SUGGESTED READINGS

1. K. Nicholls, Modern volleyball, Henery Kimption Publisher, London, 1973-78.
2. Fraser, strategies for competitive volleyball, Human kinetics Publisher Illinois 1980.
3. Volleyball technical journals, Canadian volleyball association 333, River Rd, Venier Ontario, kil 889.
4. Level 3 coaches manual,
5. Aries Selinger's power volleyball, st martin's press, 175 fifth avenue, new York, N.Y. 10010, USA.
6. Gurbakash S. Sandhu, volleyball basic and advanced, the sports people publishers of sport literature 3321, sector 15D, Chandigarh.
7. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
8. International coaches manual, federation international de volleyball, avenue, de la gare- 12CN-1001,1989/90.
9. Level 1 coaches manual, Canadian volleyball association, 333 river road, venier, Ontario Canada kil 889-1983.
10. Level 2 coaches manual

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Kinesiological and biomechanical analysis of offensive and defensive techniques.
2. Mechanics of officiating and modern trends in it.
3. Pedagogical development of techniques and methodical progression of teaching drills.
4. Advance and complex drills in offence and defense.
5. Defense system for low level of teams (school and college)
6. Modern attack combination with two attackers at net.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – I SEMESTER – I

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-H- WEIGHTLIFTING)

PAPER CODE: SPCM1104T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Development of Weightlifting in modern Olympic Games, and World Championships.
2. Development of weightlifting in Commonwealth Games , Asian Games and Afro Asian Games.
3. Development of Weightlifting in India and its contribution to Olympic Games, Asian Games, Commonwealth Games, International meets, Commonwealth Championships, Asian Championships and S.A.F Games.
4. Development of Weightlifting in some of the Asia, European Australian, African and American countries – China, Russia, Bulgaria, Greece, Australia, Hungary, Korea, Japan, USA, Germany and Iran.
5. Organizations which govern Weightlifting

- i) International Weightlifting Federation (IWF)
- ii) International Olympic Committee (IOC)
- iii) Indian Weightlifting Federation (IWF)
- iv) Indian Olympic Committee (IOC)
- v) Organizing Committee of a particular competition
- vi) Asian Weightlifting Federation.
- vii) Commonwealth Weightlifting Federation.

6. The Technical Rules of Weightlifting

The competitive lifts, characteristics of the snatch and clean and jerk. General Rules of all the lifts. In correct movements of all lifts. Participants in the competition – Women's competitions, weight classes, Age group competitions, teams competitions, Team scoring. Equipment used in Weightlifting competitions by Weightlifters, The barbell, loading the bar in competition, The platform, the lifter's costume, Electronic light system, scale, clock, forms, attempt board, score board, record board, warmup area.

7. The Structure of a competition.

Technical conference (also the drawing of lots). The weigh-in, Presentation, the competition, The order of calling the lifters for their attempts in the competition, the officials of the competition, Jury, Competition Secretary, Technical Controller Referee, Time Keeper, Doctor's on duty, Opening, Victory and Closing Ceremonies, Doping Control.

8. Explanation of the new rules and referee examination system. Why the periodic changes of the technical regulation necessary ? and the referee- his tasks and responsibility in International Weightlifting.

SECTION-B

Selecting Weightlifting Equipment and using it safely and effectively.

- a) Personal equipments :
Lifting suit, Sweatsuits and T-Shirts, Socks, Brief & Shorts, Sport Bras, Straps, Lifting belts, Weightlifting Shoes, Tape, Talcum Powder and other lubricants, Magnesium Carbonate, Knee Wraps, Wrist Wraps, Hip Pads, First Aid Kit, Gloves, well equipped Gym. Bar.
- b) Gym Equipments :

Bar, plods, collars, platform, squat Racks, Power Racks, Jerk Boxes, Pulling Blocks, A Block to stand on, Grip development devices, Benches, Height Gauze, Rest Bench, Weighing-in scale dumbbells, multi-purpose benches etc.

3. Construction and setting up weightlifting training hall.
4. Construction and maintenance of reinforced platform and training platform.
5. Safety, improvisation and maintenance of weightlifting equipments and apparatuses.
6. Management of the equipments

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching

– Communication skills:

- Understanding Communication
- Communication Style
- Types of communications
- Communication with Players
- Communication with Match officials
- Communication with parents

SUGGESTED READINGS

1. Ajan Tomas. International Weightlifting Federation Hand Book 2001-2004
Budapest, I.W.F Publication 2001
2. Ajan Tomas and Lazar Baroga. Weightlifting : Fitness for all sports. Budapest
International Weightlifting Federation 1988.
3. Alter Michael. Science of Stretching Champaign Human Kinetics Books, 1988.
4. Paul Anderson. Secrets of my strength, Vidation G.A.Paul Anderson 1970.
5. Gene Baker (ed) Coaching Manual, Vol.I-III Colorado Springs USA W.,1980. 6.
Tudor Boompa. Theory and methodology of training: The Key to athletic
performance (2nd Ed) Dubuque 1A: Kendall Publishing Company,1990.
7. Casadei, Marino and Alain Luzenficher 1896-1996: 100 Years of Olympic
Weightlifting. Budapest: International Weightlifting Federation.1996.
8. Arthur Drechsler, The weightlifting Encyclopedia,A guide to world class
performance 2002
9. Tamas Feher. Olympic weightlifting. Budapest, 2006

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-H: WEIGHTLIFTING)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Innovation in teaching weightlifting to novices.
 - a) Application of traditional methods in teaching weightlifting techniques.
 - b) Video Analysis of techniques and their invitations.
2. Teaching Practice.
 - a) Identifying the faults of the novices through observation technique.
 - b) Causes for errors and the application of different remedial measures.
3. Planning and execution of general and specific physical conditioning for the Juniors and Senior.
 - a) Exercises for the development of general physical conditioning
 - b) Exercises for the development of specific physical conditioning.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – I
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-I- WRESTLING)
PAPER CODE: SPCM1104T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

Developmental trends :

1. The value, role and objective of Wrestling
 - Historical overview of development
2. Development of Wrestling after revival of Olympic Games
3. Development in the laws of Wrestling vis-à-vis the Technical-tactical revolution in the post-independence period
4. Terminology and characteristics of Wrestling techniques
5. Competition system and purpose of training in Wrestling

6. Women Wrestling adopted by FILA – specific rules of Wrestling
7. Implementation of Rules of Wrestling by Coaches and officials and its Relations with the development of Wrestling
8. Coach; Factor of progress in Wrestling

SECTION B

Weight Making :

- i) Philosophy of Weight Control
- ii) Methods of Weight making
- iii) Weight making and competition

Effect on metabolism, strength and endurance

- i) Dehydration, Hypoxia and its effects on working ability

Diet of a Wrestler :

- i) How much diet does a Wrestler need? Facts and notions
- ii) Diet and Fast recovery after competition
- iii) Diet and its effect on the performance ability

Physical Health of a Wrestler :

- i) What is good health ?
- ii) Individual care and Consciousness
 - i) Hygiene and clean habits – as rule and otherwise
 - ii) Massage
 - iii) Stimulant and drugs : Sport and doping

Coaching Ethics:

- What are values and ethics
- Understanding personal and Professional values
- Maintaining an ethical coaching practice
- Ethical issues in sports coaching

- **Communication skills:**
 - Understanding Communication
 - Communication Style
 - Types of communications
 - Communication with Players
 - Communication with Match officials
 - Communication with parents

SUGGESTED READINGS

1. Free Style and Greco-Roman Wrestling, R.Pitrov, FILA, 1986.
2. Teaching and Coaching Wrestling, Dr.David Camaione and Dr.K.Tillman
3. Olympic Solidarity Course, M.Dusson, FILA ,Paris, 1985.
4. Wrestling is a man's game by Sergei Preobra Zhenski, Mascow, 1981.
5. Introduction to Sports Biology, Dr.J.Reh, DHFK, GDR, 1972.
6. Olympic solidarity course, lectures by Dimitri Mindiaschvilli, USSR
7. Olympic solidarity course, FILA, 1985, Martinctti 8. DHF K Journal 1/87.
9. FILA Coaches Science Seminar 1993 Yamagata - Japan
10. Coaching Wrestling Successfully – Gabledan 1999.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – I

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-I: WRESTLING)

Paper Code: SPCM1103P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. General and specific exercises for conditioning
2. Acquiring demonstration ability of modern techniques of take downs and counters of these techniques
3. Tests of techniques to be conducted
4. Tests of performance to be conducted

M.Sc. Sports Coaching

SECOND SEMESTER

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – I - SPORTS BIOMECHANICS

Paper Code: SPCM1201T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Definition and importance of kinesiology and biomechanics
2. Form of Motion
 - a. Reference System
 - b. Geometrical Course of Motion
 - c. Chronological Course of Motion
3. General concept of Axes & planes and fundamental movements
4. Lineal Motion
 - a. Linear Kinematics
 - i. Definition of some terms used in linear motion viz., Distance, Displacement, Speed, Velocity, Acceleration, Interrelationship between these – Graphical Method.
 - ii. Free body diagram and resolution of Vectors (velocity and acceleration).

- iii. Uniform acceleration motion:
 - iv. Projectile motion, its different scenarios
- b. Linear Kinetics
 - i. Fundamental Definitions: Inertia, mass, weight, force, momentum, impulse, pressure
 - ii. How to reduce force exerted on body during impact with ball and ground
- c. Work, Power and energy (Kinetic energy, potential energy, strain energy)
- d. Newton's Laws of Motion and its application in sports
- e. Newton law of gravitation

5. Angular Motion

- a. Angular Kinematics
 - i. Definitions of terms used in angular motion viz. Angular distance, angular displacement, Angular Speed, Angular velocity and Angular acceleration
 - ii. Right thumb rule and resolution of angular vectors
- b. Angular Kinetics
 - i. Definitions of terms used in angular motion viz., Eccentric force, couple, Moment of Inertia, Angular momentum
 - ii. Interrelationship between Momentum of Inertia, Angular momentum and Angular velocity
 - iii. analogues of Newton's Laws of Motion
 - iv. Transfer of momentum
 - v. Levers
- c. Equilibrium and stability
 - i. Conditions of equilibrium
 - ii. Types of equilibrium
 - iii. Factors affecting equilibrium and stability
 - iv. Maintenance and breaking of equilibrium

6. Concept of Force

- a. Types of Forces
- b. Effects of force
- c. factors determining effect of force
- d. Centripetal and Centrifugal Force
- e. Fluid Mechanics
 - i. Drag, various forms of drag and their effects on throws
 - ii. Lift
 - iii. Magnus effect
 - iv. Bernoulli's principle
 - v. Floatation
 - vi. Spin
- f. Friction

- g. Impact and Elasticity

SECTION-B

7. LIMITATION OF HUMAN MOTOR APPARATUS

- a. Bone
- b. Joint
- c. Muscle: structure, type of muscle contraction
- d. Force length characteristics

Force velocity characteristics

8. INVESTIGATIONAL PROCEDURES

- a. Different segment parameters like volume mass, moment of inertia-measurement techniques. – experimental and analytical procedure
 - i. Cadaver studies
 - ii. Computation Techniques
 - iii. Immersion
 - iv. Reaction change
 - v. Radiation technique
 - vi. Mathematical models
 - b. Centre of Gravity
 - i. Definition, Importance of determination in technique Analysis of sports
 - ii. Methods of determination
 - iii. joint point method
 - iv. main point method
 - c. Imaging Measurement techniques
 - i. Single plate methods
 - ii. Cinematography
 - iii. Television
 - iv. Optoelectronic technique
 - d. Non-cinematography technique
 - i. Use of force transducers in sports
 - ii. Use of Goniometers in sports
 - iii. Computer simulation of human motion
- ### **9. Technique and its biomechanical reflections**
- a. Movement, Style and Technique
 - b. Various aspects of technique
 - c. Development of model
 - d. Criteria of ideal technique
 - i. General
 - ii. Training
 - iii. Biomechanical
- ### **10. Motor abilities and its Biomechanical reflections**
- a. Strength Ability
 - i. Maximum Strength, F max Index
 - ii. Explosive Strength.
 - iii. Strength Endurance

- b. Speed ability
 - c. Endurance: Methods of Endurance Testing
 - d. Flexibility
11. Biomechanical principles
- a. Biomechanical Principles of Action and reaction
 - b. Biomechanical Principles of conservation of angular momentum
 - c. Biomechanical Principles of Initial Force
 - d. Biomechanical Principles of Optimum Path of Acceleration
 - e. Biomechanical Principles of Optimum Tendency in Acceleration
 - f. Biomechanical Principles of Coordination of Partial Impulses
12. Sports Performance Analysis
- a. Importance & significance of sports performance analysis
 - b. Principles of sports performance analysis
 - c. Stages of data collection, processing and interpretation
 - d. Introduction to various application used in sports performance analysis (SPSS, MS Excel, Video analysis & Performance analysis software)

RECOMMENDED BOOKS

1. Miller, D.I. and Welson, R.C. Biomechanics of Sports
2. Hay. J.G. The Biomechanics of Sports Techniques
3. Dyson, G.H.G. The mechanics of Athletics
4. Bunn J.W. Scientific Principles of Coaching
5. Grieve and Miller Techniques for the analysis of human movement
6. Hochmuth Biomechanics of athletic movement
7. Steindler textbook of Kinsiology
8. Wells, K.F. and Luttgens K. Kinesiology Scientific bases of human motion
9. James Hay text book of Kinesiology
10. Raush and Burke Kinesiology and applied Anatomy
11. Hay and Reid anatomical and mechanical aspects of human motion
12. Ramesh Rai biomechanics – Mechanical Aspects of Human Motion
13. Mike Hughes and Ian M. Franks - Essentials of performance analysis in sport

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – I - SPORTS BIOMECHANICS

Paper Code: SPCM1201P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Determination of temporal characteristics in running and other activities
2. Determination of C.G. using photographic Methods
3. Filming protocol for biomechanics parameters
4. Kinematic analysis of different sports movements using 2D video analysis software
5. Determination of force-time characteristics in jumping movements

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – II - TEST AND MEASUREMENTS & RESEARCH METHODS

Paper Code: SPCM1202T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Definition of Tests, Measurement and Evaluation
2. Trends in Measurement and Evaluation in Sports
3. Characteristics of Measurement
 - a) Reliability and Methods to establish Reliability
 - b) Validity, its types and Methods to establish Validity
 - c) Economy
4. Test Construction, Organization and Administration
5. **Norms**
 - a. Common types of Norms and their Characteristics
 - b. Criteria for Development of Norms

- c. Use of Norms
- 6. **Grades**
 - a. Considerations in the Assignments of Grades
 - b. Norm Referenced Grading System
 - i. Normal Curve
 - ii Natural Break Method
 - c. Criterion Referenced Grading System
 - i. Absolute Percentage Method
 - ii. Relative Absolute Percentage Method
- c) **Rating Scale**
 - a. Construction
 - b. Types of Rating Devices
 - c. Advantage of Rating Scales

SECTION-B

- 7. **Importance and meaning of Research**
 Research in our civilization – An overview and historical concepts. Definition and characteristics of Research, different steps in Research, formation of Hypothesis, Qualities of workable hypothesis, Research in (Sports), Present status: Need for research training.
- 8. **The Research Problem**
 General Introduction: Location of problem: Criteria in selecting a problem: Definition and delimitation problems- Limitations, Delimitation; Evolving the problem statement; the basic purpose and method of research; Basic Versus Applied Research; the field of knowledge in physical education.
- 9. **Literature Search**
 General Introduction: Need to survey related literature: major sources of literature. Critical literature and applied literature; justification and understanding of tests used; Library Sources- Bibliographies and Indexes and abstracts. Library reading working bibliography, card system, classification, skimming and obstructing.
- 10. **Survey and Case Studies**
 General Introduction: Board survey by questionnaire type of information, status, studies, expert opinion, construction of the questionnaire, appearance of questionnaire, development initial writing, trial run tabulation, rewriting; the sample,

aids to response, interview survey characteristics of the interview, the interview; sampling process, testing techniques, subject motivation, analysis of data; case studies and profiles (Collection of data).

11. **Laboratory and Experimental Research**

Experimental methods, control of experimental factors, experimental designs, sampling, instruments/tests.

12. **Writing of Research/Review Reports**

Thesis-Paper writing

Use of Sources, tables, figures, footnotes, bibliography.

13. Common statistical procedures

Suggested Readings:

- a. Measurement Concepts in Physical Education and Exercise Science: Safrit M. J. and Wood T. M. Human Kinetics
- b. Measurement for Evaluation in Physical Education and Exercise Science: Baumgartner T. A. and Jackson A. S. Win C. Brown
- c. Measurement in Physical Education: Meyers C. R. The Ronald Press Company
- d. A Practical Approach to Measurement in Physical Education: Barrow H. M. and McGee R. Lea and Febriger
- e. Practical Measurement for Evaluation in Physical Education: Joknson B. L. and Nelson J. K. Surjeet Publications
- f. Measurement and Evaluation in Physical Evaluation: Phillips D. A. and Hornak J. E. John Willey and Sons
- g. Practical Measurement of Physical Performance Eckert H. M.: Barkley
- i. Measurement and Evaluation in Human Performance: Morrow J. R. Jackson A. W. Disch J. G Mood D. P. Human Kinetics

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – II - TESTS AND MEASUREMENTS

Paper Code: SPCM1202P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. To Determine the Reliability of a Test by Test and Retest Method
2. To Determine the Concurrent Validity of a Test
3. To Construct Percentile Norms
4. To Construct Z Score Norms
5. To Construct Stanine Score Norms
6. To Construct Six Sigma Score Norms
7. To Construct Hull Score Norms
8. To Construct T Score Norms
9. To Construction of Rating Scale to perform common statistical test

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-A- ATHLETICS)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

Sprints

- Biomechanical analysis of sprints
- Physiology and Psychology of sprinting
- Factors affecting sprint phases

Hurdles

- Biomechanical analysis of Hurdles Technique:
- Physiology and Psychology of Hurdle
- Factors affecting hurdles phases

Training of Sprinters:

- Load Dynamics
- Systematization of the training, periodization and planning
- Principles of training for the sprint

Relay:

- The sprint Relays non-visual, non-verbal
- Selection of teams and running order
- Responsibilities of incoming and outgoing runners.

HURDLES

- Tests for hurdle clearance and speed in between hurdles.
- Flat and hurdle time differences
- Specific endurance test for 400 M. hurdles

Rules and Organisation of Competition.**SECTION- B****Relay :**

- Starting technique of world class teams
- Check wards various methods to find out the C.M. and the exact distance
- How much distance is covered by each individual
- Combinations of outstanding teams and differential timings of world class teams
- The sprint Relays non visual, non-verbal
- Various botton exchange technique
- Selection of teams and running order
- Responsibilities of incoming and out going runners.
- Physical characteristics of (100 Mtr. 110 Mtr.Hurdle 400 Mtr. Men & Women) hurdler Relay runners.
- analysis of height weight index of elite hurdler Philosophy of Coaching.
- Performance evaluating tests for elite hurdler.
- Selected test exercises for getting technical efficiency
- Specific plyometric training for hurdler.
- Tests for hurdle clearance and speed in between hurdles.
- Flat and hurdle time differences.
- Start efficiency tests
- Overall performance tests

- 200 M. Best time at its relation with 400 M. hurdle's time
- Approach run suitability test
- Stride length suitability test
- Specific endurance test for 400 M. hurdles
- 5 Hurdle timing at its relation with overall performance

Training of Hurdles:

- Trends in hurdle training
- Comparison of top class hurdler's training performance
- Rhythm
- Hurdle flexibility drills
- Strength training for hurdlers
- Periodization for 100M. and 400M. Hurdles.

Training of Relay :

- Practice tips in Relay race
- Speed and baton exchange
- Teaching and training of relay race at various levels
- Psychological preparation of athlete before and during competition

Multi Event:

- Physical and psychological characteristics of Decathletes and Hepathletes
- Long term progressive stages of combined events
- Advance training methods for combined events
- Factors of success in Decathlon/Helpethlon performance
- General tips and tactics
- Tests and evaluation and psychological preparation
- Diet and before, during and after the competition

SUGGESTED READINGS

1. Geoffrey H.G.Dyson, The Mechanics of Athletics Hodder and Stoughton, London Sydney, Auckland, Toronto, 1977.
2. Ken Doherty, Track and Field Omnibook Tafnews Press, P.O. Box, 296, Loss Allos 940 CA 22 USA.
3. F.Wilt and T.Eeker: International Track and Field for Coaching Encyclopaedia, Parker, Publishing Company, Inc. West Myack, New York, 1970.

4. Howard Payne : Athletes in Action Palham Books Ltd., 44 Bedford Square, London, WBCIB 3 DU 1985.
5. Jess Jarver: Middle Distances – Tafnews Press (1979).
6. F.Wilt & T.Ecker: International Track & Field Coaching Encyclopaedia, Parker Publishing Company Inc West Nyack. N.York, 1970.
7. Track & Field Quarterly Review (Vol.82, No.2, Summer 1982) Track & Field Association, USA, 10920 Ambassdor Drive Suite 302, Kensas City, Missouri 64153.
8. Track & Field Quarterly Review.
9. Wilbur L.Ross., The Hurdle Bible, Santana Printing Company, 3rd Edition, 1978.
10. Wilt Fred: The Throws 1974, 1980 (Tafnew Press, California).

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-A: ATHLETICS)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Training of Sprinters:

- Systematization of the training plan, periodization of training-single and double periodization.
- Principles of training for the sprint
- Load Dynamics
- Demand profile of sprinter

2. Training of Hurdlers:

- Systematization of the training plan, periodization of training-single and double periodization.
- Principles of training for Hurdler
- Load Dynamics
- Demand profile of Hurdler

Relay

- Systematization of the training plan, periodization of training-single and double periodization.
- Principles of training for the Relays
- Load Dynamics

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-B- BASKETBALL)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Critical analysis of developmental trends in modern basketball with regards to:-
 - a) Tactics and their variations (used in different levels of competitions, development of new tactics, etc)
 - b) Rules and regulations, their interpretations and practical application / implication (Rule seven and rule eight till article 58)
2. Analysis of individual offensive and defensive tactics in modern basketball with recent developments :
 - a) Individual offensive and defensive tactics
 - b) Programs for the tactical solutions of standard situations with regards to

Individual positional play (guards, forwards and centers)

3. Critical analysis of developmental trends in modern Basketball with regards to :
 - Impact of recent rule changes on techniques, tactics and strategy – Latest amendments carried out in 2000 and rule changes upto 2020.
4. Critical analysis of pre-requisites of high performance in the light of current developments with regards to :
 - a) Physiological aspects
 - b) Physical (motor/conditional) abilities
 - c) Individual offensive and defensive tactics
5. Critical analysis of group (combined) offensive and defensive tactics in modern basketball :
 - a) Two-men combination
 - b) Three-men combination
 - c) Analysis of games (live games and videos) making of strategy of game
 - d) Advance tactics (team tactics) man to man D/O quarter/half /full court

SECTION- B

1. Training of individual basketballers :
 - a. Short term and long term proficiency build-up.
 - b. Pre-requisites for developing a high standard of performance
2. Methodical phases of teaching and training of individual technical and tactical actions :
 - a. Phase-I : Learning and stabilization of several basic forms of movements and their Variants for achieving the tactical aim.
 - b. Phase-II: Development of abilities to correctly assess the situation to select the correct aim and programme of action and execution under simplified situation.
 - c. Phase-III: Development of ability to correctly apply tactical situation for each new situation with opponents action in accordance with the tactical concepts in practice matches and competitions.
3. Training of individual basketballers :
 - a. Preparation of exceptionally tall players- men & women

- b. Contents of individual training without direct guidance from coach and organization of individual training
4. Methodical phases for the development of techno-tactical actions in basketball:
Phase-I : Acquisition stabilization and perfection of several basic forms of movements and Their variants
Phase-II : Development of the abilities and correctly assessing the situation
Phase-III: Development of the ability to apply the right tactical actions in practice Matches and competitions.
Formation of the specific tasks for each phase and means and methods of development for fulfilling these tasks.

SUGGESTED READINGS

1. Coaching Basketball successfully by Morgan Wrotten, ILLINOIS, Leisure Press, 1992.
2. Practical modern basketball by R.John Wooden, 2nd Edition, N.Y. 1980.
3. Becoming a Basketball player individual drills by Hal.Wissel, Springfield Basketball World, 1990.
4. Basketball Coach's complete hand book by Glenn Wilkes, N.J.Prentice Hall, 1965.
5. Secrets of winning post play basketball Rich Graver N.Y. Parker, 1980.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-B: BASKETBALL)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching and Training of recent individual offensive and defensive tactics for various positions (guards, forwards, centers) in a systematic way.
2. Teaching and training of latest group (combined tactics in offensive and defensive)
3. Mechanics of officiating, along with 3 men officiating

SUGGESTED READINGS

1. Secrets of winning post play Basketball by Rich Grawer, Parker Publishing Company 1980.
2. Basketball Multiple offense and defense by D.C.Smith and R.B.Spear, New York, 1982.
3. Conditioning for Basketball by pall Foster
4. Theory and methodology of training – The Key to athletic performance by Tindor O.Bompa, Kendall/ Publishing Company, Iowa, USA.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-C- FOOTBALL)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Formation of International body to control and regulate the game:

- a. Formation of F.I.F.A (1904) and development of the game.
- b. Its structure
- c. Its administration
- d. Its function
- e. Development performance
- f. Control

2. Laws of the game and Referee:

- a) Interpretations and critical analysis of laws of the game (Law No.12 to 17)
- b) Time allowance, extended time and extra time in football game
- c) Operation of diagonal system of control followed by Referee & its merits.
- d) Physical fitness tests for Referee.
- e) How the penalty shoot out procedure is adopted
- f) How the laws affects the team tactics.

3. Leadership in Coaching

- a) Qualities of a Leader as a Coach and Player
- b) Managing Players, Coaching Staff
- c) Leadership Qualities as a Coach
 - i. Understanding the sport.
 - ii. Sharing Knowledge
 - iii. Positive environment
 - iv. Good Communication
 - v. Self-Awareness
 - vi. Character
 - vii. Understanding / Knowing people
 - viii. Leading by example
- d) Leadership qualities as a Player
 - i. Consistency
 - ii. Ready to lead/take charge
 - iii. Helping attitude
 - iv. Emotional Control
 - iv. Selfless
 - v. Determination/Persistent

4. Fundamentals of Players Development

A. Age Specific

- a) 6-11
- b) 12-17
- c) 18+

B. Player-coach relationship

- a) Shyness
- b) Disrespect
- c) ego

C. Moral Development

- D. Emotional Development
- E. Intellectual Development

5. Managing Obstacles

- a) Obstacles
- b) Causes of obstacles
- c) Tools to cope up Obstacles

6. Individual tactics in Defence :

- o Man to Man marking when, where & how
- o Zonal marking when, where & how
- o Shadow marking
- o Delay and Restriction
- o Tackling: Different kinds of tackling
 - Sliding tackles and its role
 - o Anticipation and interception
 - o Defensive Lapses
 - o Transition from defense to attack

7. Individual tactics in Attack :

- o Getting free - reasons
- o Passing and controlling ability
- o Shooting and scoring ability
- o Feinting and Dribbling
- o Time and space in football
- o Transition from attack to defense

8. Relation between tactics and technique

- o Coaching Positions and its requirements

9. Recovery and Regeneration

SECTION- B

1. Analysis of latest World Cup:

A. Statistical information regarding:

- a) How the goals were scored

- b) How much load, technical and physical, one has to face during such competitions analysis of topic adopted in restart/set play.
- c) How the stationary tactics play an important role.
- d) Distance covered by a player
- e) Nature and magnitude of physical load during game

2.Technique in Football:

- a. Analysis of technique without ball
- b. Role of techniques without ball in the game of football
- c. Development of techniques without ball
- d. Defensive position in football
- e. Running technique in football

3. Team Building/Team Preparations

- a) Technical-Preparations
- b) Tactical Preparation
- c) Mental/ Psychological Preparation
- d) Physical Preparation
- e) Credibility
- f) Presentation
- g) Man Management

4. Match Day Preparations

- a) Before the match
- b) During the match/ half time
- c) After the match

5. Problem Solving

- a) Coach as problem Solver
- b) Triggers for stress and pressure

Development of motor abilities :

- i) Endurance : General, basic and specific endurance required in football

Means and methods used for improvement of general basic and specific endurance

Relation between endurance and football technique

Relation between endurance and tactics in football

ii) Strength : Means and methods used for the development of strength, strength endurance, explosive strength and jumping force concept of weight training

iii) Speed : Forms of speed in football
Means and Methods used for development.

Analysis of technique with ball.

- Kicking techniques and heading technique
- Controlling techniques
- Stages of learning technique

- Methods of technical training : Practice method, Game method and complex method. Aims as well as merits and demerits of these methods.

- Methods of Individual training, Planning, Organisation and structure of individual training.

- Tests for technique evolution.

Nature and magnitude of physical load during the game (match). Total distance run, running pattern, number of jumps.

- Match Plan and Match day Preparation
- Post match analysis

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-C: FOOTBALL)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching, training and coaching of technique with ball:
- All trapping techniques
2. Teaching, training and coaching of individual tactics with and without ball.
3. Testing and Evaluation for motor abilities and ball skill
4. Technical training in age groups
5. Teaching practice
6. Refereeing

SUGGESTED READINGS

1. Laws of the game, Association Football, England, 2003-04.
 2. Glanville, Brain, The history of world Cups, Times Newspaper Limited.
 3. Widdows, Richard, The Soccer book, Octopus Books Ltd., London, 1981.
 4. Bellq, A. Tactical soccer for players and coaches “The Team A.S. Barnes & Company, New Jersey, 1978.
 5. The FIFA/COCA-COLA International Academy Part-II, Team: Preparation related to competition football. The FIFA/COCA-COLA World Football Youth Academy. The Football Association’s Referee’s chart & player’s guide to the Laws of the Association Football 1990-91, Pan Books, London and Sydney.
 6. Latest FIFA Magazines.
 7. Arpad Csanadi, soccer, 1968.
 8. Fric Batty, Coaching Modern Soccer attack, Faber & Faber, London, 1980.
- FIFA Football World Cup 2002 Technical Report

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-D- GYMNASTICS)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Latest changes and amendments in code of points in women Artistic Gymnastics (WAG)
2. Evaluation of compulsory exercises in WAG (Sub Juniors)
3. Evaluation of Optional Exercise IN WAG
 - i. Evaluation of generalities
 - ii. Evaluation of difficulty
 - iii. Evaluation of execution
 - iv. Evaluation of special requirements
 - v. Evaluation of Bonus Points
4. Evaluation of optional exercises on :
 - a) Uneven parallel bars.

- b) Balancing beam
 - c) Floor and
 - d) Vaults in Women Artistic Gymnastics

- 5. Code of points for Rhythmic Gymnastic.
 - a) Various competitions conducted by F.I.G. and other international organization.
 - b) Team and individual competitions- their format and organization
 - c) Structure and functions of judges panel
 - d) Structure and format in various competitions (competitions i, ii, iii & iv)

- 6. Gymnastics terminology:
 - a) Definitions principles and methods of Terminology
 - b) Types of grips used in Gymnastics

- 7. Technical aspects and methodical approach to the problems of successful teaching of different advanced elements on apparatuses :
 - a) Floor Exercise
 - b) Pommel Horse
 - c) Roman Rings
 - d) Vaulting Table
 - d) Parallel Bars
 - e) Horizontal Bar
 - f) Uneven Bar
 - g) Uneven Bars
 - h) Balancing Beam

- 8. The use of symbol language in WAG
 - a) Introduction of symbol language
 - b) Principles to read and write the symbols
 - c) Basic and advanced symbols on all the apparatuses

- 9. The basic code of points for
 - i. Trampoline
 - a) Basic rules and regulations
 - b) Different types of combinations
 - ii) Sports Acrobatics :
 - a) Basic rules & Regulations

- b) Various types of competitions conducted at various levels
 - iii) Sports Aerobics:
 - a) Basic rules and regulations
 - b) Different types of competitions
 - iv) General Gymnastics basic rules and competitions
- 10. Names and definitions of basic and advanced positions, movements and elements.

SECTION- B

1. General Development Exercises :
 - Definition and Characteristics of GDE.
 - Role of GDE in Gymnastics Training
 - Means and methods of G.D.E
2. Planning and Periodization of Training in Gymnastics :
 - a) Long Term Plan-its aim and objectives, contents and means and methods of training
 - b) Annual Plan, and Periodization of training :
 - Single periodization, Double periodization and Multi periodization
 - c) Training Schedule :
 - Weekly schedule
 - Daily schedule
 - Lesson plan
 - d) Planning for competition.
3. Children Training: Its Aims, Procedure and Objectives
4. Technical aspects and methodical approach to the problems of successful teaching of different advanced elements on apparatuses :

a) Floor	b) Pommel	c) Parallel bars
d) Horizontal bar	e) Vaulting table	f) Rings
g) Balancing beam and	h) Uneven bars	
5. Use of symbol language in MAG
 - a) Introduction of symbol language

- b) Principles to read and write the symbols
 - c) Basic and advanced symbols on all the apparatuses
- 6. Definition of basic biomechanical terms
 - a. (Different motions, velocity, force, momentum, acceleration, angular momentum, movement of inertia etc.).
 - b. Biomechanical principles and their applications in Gymnastics movements.
 - i. B.P.of Initial force
 - ii. B.P. of optimum path of acceleration
 - iii. B.P. of coordination of partial impulses
 - iv. B.P. of conservation of angular momentum
 - v. B.P. of action and reaction.
- 7. Structural group of Jumps
 - a) Various phases of Vault and their technique
 - b) Training of various phases of vault
- 8. Role of conditional abilities in Gymnastics
 - a. Role of strength
 - b. Role of speed
 - c. Role of endurance
- 9. Procedure to develop the various Motor abilities
 - a) Maximum strength
 - b) Strength endurance
 - c) Explosive strength
- 10. Role of Coordinative Abilities In Gymnastics And Their Development

SUGGESTED READINGS

1. Code of Points for Women by FIG, Switzerland 2009 edition.

2. Code of Points for Rhythmic Gymnastics by FIG Switzerland 2009 edition.
3. Fundamental of Men's Gymnastics by Dr.G.S.Bawa, Friends Publication, 1991.
4. Symbol language by FIG Switzerland 2009 edition.
5. Management planning by FIG, academy Dec.2001 edition.
6. Fundamentals of Sports Training by L.Matveyev, Progress Publishers Moscow,1981.
7. Long Term training of Young Sportsperson by Dr.Alexander K.Krassilchtchikne, Hyderabad, April,1995.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-D: GYMNASTICS)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Developing presentation teaching and coaching abilities of gymnastic skills.
2. Teaching and training of advance skills in all apparatuses
3. Planning of training motor abilities (general and specific)
4. Measurement and evaluation of different motor abilities and formation of specific motor abilities tests.
5. Formation and evaluation of technique tests
6. Officiating
7. Observation, registration and evaluation of various elements on all apparatuses through video analysis and film analysis
8. Training of basic gymnastics elements on all apparatuses and conditioning programme for one's own fitness.

SUGGESTED READINGS

1. Men's Gymnastics by Fukuslino & Wiro Russel, Faber and Faber London, 1980.
2. Men's Gymnastics Coaching Manual by Readhead Livod, springfield's book Ltd.
3. Coper Phyllis, Tranka Mitran, Teaching Gymnastics skills to men & women New Delhi, Surjit Publications, 1982.
4. Symbol language by FIG, Switzerland, 2009 edition.
5. Code of Points for Trampoline by FIG, Switzerland 2009 edition.
6. Code of Points for Acrobatics by FIG, Switzerland 2008 edition.
7. Code of Points for Aerobics by FIG, Switzerland 2008 edition.
8. Biomechanics of Sports Techniques by Jame G.Hay.
9. Biomechanics of Athlete Movements by Ing et Paed Habil. Hockmuth, Sportverlag, Berlin, 1984.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – II
THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-E- HOCKEY)
PAPER CODE: SPCM1203T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Development of skills without ball
Space creation, support in play, positioning, marking, covering, shadowing the Opponent, closing down, tackling
2. Training grids :
Aims and importance
Small area games, recreational games, conditioned games, planning of grids for Different age groups.
3. Coaching for Goal Keepers and Deep Defenders

4. Qualities Of A Goal Keeper, Physical And Psychological. Use Of Hands, Feet And Body. Team Play. Qualities Of Deep Defenders, Physical And Psychological Functions In Attack And Defence.
5. Positional Play Of Half Backs And Forwards.
Qualities Of Half Backs And Full Backs. Physical And Psychological Functions In Attack And Defence.

SECTION-B

1. INJURIES:

Most common injuries in hockey, specially on synthetic-play field
First aid and treatment of injuries prevention of injuries

Organizational aspects of competitions in Hockey

- i) Organization of competitions – formation of different committees, duties of the competitions
- ii) Different types of fixtures
- iii) Management and organization of an international hockey competition.

2. FITNESS TRAINING FOR HOCKEY

- a) Aerobic training, Anaerobic training, speed and acceleration, muscular strength, mobility exercises.
- b) Talent identification for hockey and its development selection procedure.
- c) Development of talent on long term basis.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-E: HOCKEY)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Warming up – general and specific
2. Organization of minor games for technical and tactical development of hockey players.
3. Class handling and class management, mechanism of officiating.
4. Functional training of goal keepers, full backs, half backs and forwards. 5. Match analysis by observation and video recording

SUGGESTED READINGS

1. Horst Wein, The Advanced Science of Hockey, Pelham Books, London, 1981.
2. Taylor Ian, Behind the mask, Macdonald Queen Anne Press London, 1989.
3. Walter Cyril, Hockey the Gold Medalway.
4. Brodreick Kathleen, Coaching Goalkeepers, Vanier, Ontario, Canada 1987.
5. Singh,H., Science of Sports Training.
6. Singh H,Singh T, Gill IS, Training Manual Hockey, Sports Authority of India, Netaji Subhas National Institute of Sports,Patiala,2002.
7. Training Manual: Hockey, NIS Publication,2001.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – I SEMESTER – II
THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-F- SWIMMING)
PAPER CODE: SPCM1203T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. FINA Rules and their interpretation governing :
 - Swimming, Open water Swimming
2. FINA Rules and their interpretation governing :
 - Swimming Competition Facilities
 - Medical rules
3. The Grab start technique for ;
 - a) Front crawl events

- b) Butterfly events
- c) Breast Stroke events

- 4. Technique of circular (conventional) arm start for;
 - a) Swimming events
 - b) Relay events ‘

- 5. Selection of talent/young Age group Swimmers :
 - c) Selection tests and measurements
 - d) Stroke Mechanics evaluation
 - e) Psychological evaluation

- 6. Teaching technique to beginners:
 - f) Methods of teaching technique
 - g) Teaching of Basic Swimming Skills
 - h) Sequence of teaching competitive Swimming Strokes, starts and turns
 - i) Faults and corrections (Beginners)

- 7. Basic Training in Swimming
 - j) Aims and tasks of Basic Swimming training
 - k) Organization of Basic swimming training
 - l) Basic training of strokes, starts, turns, IM switch over turns, Relay take offs

- 8. Evaluation process in technique development:
 - m) Evaluation of technique at Basic level
 - n) Methods of technique evaluation
 - o) Integration of evaluation process in training
 - p) Motivating the young swimmer for evaluation process

SECTION- B

- 1. Technique of Track start for,
 - a) Free style events
 - b) Butterfly events
 - c) Breast Stroke events

2. Technique of Back stroke swim start.
3. Technique of Individual Medley event(Switch over) turns;
 - a) Butterfly stroke to Back stroke turn
 - b) Back stroke to Breast stroke turn
 - c) Breast stroke to Free style turn
4. The training equipment and its use;
 - a. Pace clock, The Pacer, Water treadmill, Iso-kinetic swim bench, Drag equipment, Pulse Monitor, Lactate tester, Roller Bench, Iso-kinetic multi station pull and push equipment, Stretch Cords, Power tower.
5. The pre-requisites of High performance in modern competitive swimming :
 - a. Anthropometrical aspects (Body measurements composition)
 - b. Physiological aspects
 - c. Technical aspects (Stroke Mechanics, Stroke Length, stroke frequency)
 - d. Psychological aspects with respect to distance of the event.
6. Analysis of technique of modern world class performers with special Reference to Kinesiological and Bio-mechanical aspects (Movement co-ordination) for:
 - a) Competitive Swimming Strokes
 - b) Competitive Swimming Starts
 - c) Competitive Swimming turns
7. Performance analysis of world class swimmers for :
 - a. Swimming events
 - b. Relay events
 - c. Pace analysis of middle distance and distance events
 - d. Individual medley events
 - e. Analysis of competition Race strategies and tactic

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-F: SWIMMING)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Acquiring demonstration ability of modern techniques through practice in all swimming strokes, starts and turns.
2. Teaching practice of all Swimming technique
3. Officiating
4. Ground exercises, games and gymnasium work.
- 5.

SUGGESTED READINGS

1. Counsilman, J.E.: "The Science of Swimming" Pelham Books Ltd., Bedford Square, London, 1977.
2. Counsilman, J.E.: "Doc Counsilman on Swimming". Pelham Books Ltd., Bedford Square, London, 1981.
3. Counsilman, J.E.: "Competition Swimming Manual for Swimmers and Coaches". Pelham Books Ltd., Bedford Square, London, 1982.
4. The New Science of Swimming: Counsilman J.E, Counsilman Brian E.
5. David, G.T.: "Swimming Steps to success". Leisure Press, Champaign Illcons, 1978.
6. Hogg, J.M.: "Land conditioning for Swimmers" E.B. Publishing Co., Great Britain, 1969.
7. Maglichio, E.W.: "Swimming Faster". Malyfield Publishing Company, Palo Alto, California, 1982.
8. Maglichio, E.W.: "Swimming Even Faster". Magfield Publishing Company, Palo Alto, California, 1990.
9. Singh, H.: "Sports Training: General Theory and Methods". NIS Publication,
 - i. Patiala, 1984.
10. Singh, H.: "Science of Sports Training" D.V.S. Publication, New Delhi, 1991.
11. FINA Hand Book: "Constitution and Rules: Swimming, Open Water Swimming, Diving,
12. Water Polo, Synchronized Swimming, Masters, Facilities, Medical and Doping" FINA Hand Book, 2009, S.F.I. India,

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION – A

1. Modern concepts of coaching technique and tactics in:-
 - a. Setting
 - b. Blocking
 - c. Court defence
 - d. Attacking
 - e. Defense and offense
2. Critical analysis of selected aspects of developmental trends in modern men and women volleyball.

3. Analysis of various volleyball skills with regards to kinesiological and biomechanical aspect involved:
 - a. Attacking (straight smash, wrist smash, body turn, slide attack, quick attack and back court attack).
 - b. Setting (Forward set, back set, lateral set, field set, setting with role and setting for various tempos).
4. Motor learning- how to teach skills.
5. Critical analysis of pre-requisites for high performance in the light of current development with regards to:
 - a) Constitution of body
 - b) Physical (motor) abilities.
 - c) Physiological
 - d) Sociological
 - e) Technical and tactical
 - f) Psychological abilities
 - g) External factors (political, economical, environment and nutrition etc.)
6. Analysis of volleyball skills with regard to kinesiological and biomechanical aspect involved:
 - a. Blocking (single, double, triple and various approaches and arrangements)
 - b. Field defense (skills involved in field defense, important concept in developing field defense, principles of field defense)
7. Coaching skills and their organization, practice and drills design:
 - a) Throwing for basic techniques (volley pass, dig pass, setting and hitting)
 - b) Throwing for offence and other trainings.
 - c) Hitting variation
 - d) Rolling
 - e) Bouncing

SECTION – B

1. Team building (training, tactics and strategy in various basics and advance systems of offense and defense):
 - a. Reception systems
 - b. All attack combinations.
 - c. Systems of covering the attack.

- d. Defense systems
 - e. Transitional attack
- 2. Pre-requisites for beginner in volleyball.
- 3. Preparation and training to improve psychological abilities.
- 4. Game and drill variations for fun, learning and youth volleyball.
- 5. Developing game plan and coaching during match.
- 6. Physical and psychological training:
 - a. Principles and methods of developing specific motor abilities in volleyball.
 - i. Speed of movement
 - ii. Power for jumping and hitting
 - iii. Specific endurance.
 - b. How to overcome stress during competition.
- 7. Evaluation of conditional abilities in volleyball:
 - a. General fitness tests.
 - b. Specific fitness tests.
- 8. Teaching, training and critical analysis of Individual tactics in :
 - a. Service
 - b. Reception
 - c. Set up
 - d. Attack
 - e. Block
 - f. Floor defense
- 9. Beach volleyball:
 - a. Rules
 - b. Construction of beach volleyball court.
 - c. Basic tactics and strategies.

SUGGESTED READINGS

1. Fraser, strategies for competitive volleyball, Human kinetics Publisher Illinois 1980.
2. Volleyball technical journals, Canadian volleyball association 333, River Rd, Venier Ontario, kill 889.
3. Level 3 coaches manual, 1979.
4. Aries Selinger's power volleyball, st martin's press, 175 fifth avenue, new York, N.Y. 10010, USA.
5. Gurbakash S. Sandhu, volleyball basic and advanced, the sports people publishers of sport literature 3321, sector 15D, Chandigarh.
6. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
7. International coaches manual, federation international de volleyball, avenue, de la gare- 12CN- 1001,1989/90.
8. Level 1 coaches manual, Canadian volleyball association, 333 river road, venier, Ontario Canada kil 889- 1983.
9. Level 2 coaches manual 1983.
10. Level 3 coaches manual- 1979.
11. Volleyball technical journal, Canadian volleyball association 333 river Rd, vanier Ontario, kill 1980.
12. Volleyball, FIVB official magazine, FIVB avenue, de la gare- 12 CH-1001 Lausanne, Switzerland.
13. FIVB text book, coaches course level 2, avenue, de la gare- 12 CH -1001 Lausanne.
14. Dr. Berthold frohner, skills in volleyball training, sports vering Berlin, Germany, 1986.
15. Stuart Biddle, Annede looy, Feter Thomas, Rob yongs, get ready for volleyball, the crowood press, Raws Bury, Morboough, Willshare SNB 2HE- 1989.
16. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
17. Gozansky, S. : championship volleyball- techniques and drills- Tarkar publishing company, INC, New York, 1983.
18. Nevelle, W. J. coaching volleyball successfully- Leisure press, human kinetics publishers, INC, USA, 1990.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Test and measurements of a volleyball player.
2. Role of a coach (pre, during and post match).
3. Performance analysis during competition.
4. Scouting of opponents and owns team with modern devices (video and computer).
5. Training of offensive and defensive techniques.
6. Functional training of:
 - a. Zone 4 player
 - b. Zone 3 player
 - c. Zone 2 player
 - d. Server

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-H- WEIGHTLIFTING)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Methods of identifying talents in Weightlifting :
 - i) Somatic development
 - ii) Motoric development
 - iii) Socioeconomic development
 - iv) Psychological development
2. Organized Selection Process :
 - i) Mass stage
 - ii) Specific
Selection
 - iii) Final selection

3. Percentage of scheduled demands :
 - i) Motor capacity
 - ii) Psychic capacity
 - iii) Somatic type
4. Tests used for General and specific ability assessment.
 - i) Speed test
 - ii) Strength test
 - iii) Flexibility test
 - iv) Coordination test
 - v) Explosive test
 - vi) Technique and skill adaptation test
 - vii) Strength endurance test
5. The technique of Snatch and Clean and Jerk
 - i) Some controversies and concepts of modern weightlifting technique.
 - The technique versus strength controversy.
 - Is there only one “Best” Weightlifting Technique ?
 - Oversimplification versus unnecessary complexity.
 - The basics of the technique of the snatch and Clean and Jerk
 - ii) Analyzing the Snatch and Clean and Jerk via the “six phases” and the trajectory of the bar.
 - iii) General guidelines for sound technique.
 - iv) The Trade-offs in technique and their role in individualization
6. Teaching and learning Weightlifting technique.
 - i) Basic concepts of human motor control and motor learning theory
 - ii) Basic principles of motor learning
 - iii) Teaching technique
 - iv) Perfecting an athlete’s weightlifting technique.
7. Methods of identifying technique faults.
 - i) Errors in Balance
 - ii) Errors in Body positioning
 - iii) Errors in Tension

- iv) Errors in Timing
 - v) Errors in Efforts
 - vi) Errors involving muscle groups
8. How to correct technique problems.
- i) The technique of teaching the lifts by the progressive Elimination of faults
 - ii) Communicating about faults
 - iii) Specific errors and methods for correcting them
 - a) The lifter who drives the bar forward in the Jerk
 - b) Bending the arms excessively while pulling
 - c) Premature contraction of various muscle groups
 - d) Extending the body too much and/or holding the extended position for too long a period
 - e) The lifter who splits backward or forward in the Jerk
 - iv) The fine art of automating the correction.
9. Developing the training plan
- i) Creating the training plan
 - ii) The essence of planning
 - iii) Integrating long and short term planning (aims & load indices)
 - iv) The work out plan
 - v) The process of developing training programmes
 - a) Peacking methods
 - b) Fatigue and over training
10. Planning for Beginners and juniors
11. Specificity of training a month before the competition.
12. Specificity of a training Unit, weekly and monthly cycle in competition period and preparatory period.
13. Planning of general and specific physical qualities from preparatory period to competition period.

14. Periodization of training (Soviet style)
15. Single and multi-periodization. The distribution of volume, repetition, set and intensity
16. Other approaches to periodization.

SECTION- B

1. Prevention of accidents
 - i) General safety measures
 - ii) Duties of the coach to prevent accidents
 - iii) Duties of the lifter to prevent accidents
2. Safety Gadgets
 - i) First-Aid
 - ii) Making the equipment safe
3. Restorative measures
4. Interpretation of field tests and Laboratory tests
5. Selecting appropriate test, organizing testing procedures and testing protocols.
6. Evaluating the test data.
7. Strength and power and their importance in Weightlifting
 - i) Strength versus technique in Weightlifting
 - ii) The training effect: Key to developing strength and power
 - a) Frequency b) Intensity c) Specificity
8. Special training considerations for developing power together with strength:
Developing flexibility for Weightlifting
 - iii) Functional flexibility for Weightlifting

- iv) The specificity of flexibility with types of stretching
- v) A new method of stretching “Active Isolated”.
- vi) Training for increased flexibility and permanent versus short term Increases in flexibility

9. Methods of overall development of Beginners.

- i) General and specific physical development
- ii) Distribution of exercises (classical and supplementary monetary exercises.
- iii) Warm-up
 - a) Role and type of warm-up
 - b) Warming up for competition and training
 - c) Warm down

10. Various methods of training.

- i) Concentric contractions or Actions
- ii) Eccentric contractions or Actions
- iii) Isometric contractions
- iv) Isokinetic Exercise
- v) Variable resistance exercise
- vi) Compensatory Acceleration
- vii) Plyometrics
- viii) Functional isometrics
- ix) Electrostimulation
- x) Circuit training

11. Principle means of weightlifting training.

- i) Pedagogical measures
- ii) Medical and physiotherapeutic means
- iii) Psychological means
- iv) Bio-mechanical means
- v) Material objects

12. Methods of Strength improvement
- i) Maximum strength method
 - ii) Isometric contraction
 - iii) Circuit training
 - iv) Strength training for muscle hypertrophy
 - v) Method of efforts to failure
 - vi) Method of medium efforts
 - vii) Power training method
 - viii) Method of heavy efforts
- d) John Davis multiple set of low reps
 - e) The helpful method of building on Reps
 - f) Pave Andersons training programme
 - g) Two Soviet squatting routines
 - h) Ed Canos squat programme

SUGGESTED READINGS

1. Charniza, Andrew, Jr. Weightlifting Training and Technique, Livonia, 1992
2. Medvedyev, Aleksei. A system to multi year Training in weightlifting. 1989
3. 1974, 1980, 1981, 1982, 1983, 1984 and 1985 weightlifting year book. (1975-1987)
4. Roman Robert. The Training of the weightlifter, 1988
5. Roman Robert and midkant shakirzyanav. The snatch, The clean & Jerk, 1982
6. Verkhoshansky, Yuri. Fundamentals of special. Strength training in sport 1986
7. Andrew charniga Jr. Programming and orzanization of Training – 1986

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-I: WEIGHTLIFTING)

Paper Code: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Projects of technical analysis:
 - a) Analysis of action photo
 - b) Digital video analysis.
 - c) Analysis of V-scope data
2. Officiating of Weightlifting championships:
 - a) Functioning as announcer
 - b) Functioning as Referee
 - c) Functioning as Jury.
 - d) Functioning as Technical Controller
3. Projects of preparing Training programmes:
 - a) Beginners Training Programme.
 - b) Training programme for youth (under 16 years).
 - c) Training programme for juniors (under 20 years)
 - d) Training programme for seniors.
 - e) Training programme for elite men and women.
4. Planning and conducting recreational games for relaxation and recovery.
5. Projects of organizing and evaluation of specific motor ability tests:
 - a) Tests for medium strength.
 - b) Tests for explosive strength.
 - c) Tests for strength endurance.
 - d) Tests for coordination.
 - e) Tests for flexibility in weightlifters.

SUGGESTED READINGS

1. Proceedings of the Weightlifting Symposium: 1993 Ancient Olympia successfully. Agues and ferenc Taleas, IWF,1993.
2. Turning win in to gold: How to succeed as a personal trainer, New York. The Biomechanic Properties, 1995.
3. Weightlifting Vordobyev arkady, IWF, 1978.
4. The development of clean and jerk. Webster David Ciria, 1966.
5. The Science and Practice of strength training. Zatsiolsky Vladimir. Human Kinetics,1995.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

THEORY PAPER – III- SPORTS SPECIALIZATION (OPTION-I- WRESTLING)

PAPER CODE: SPCM1203T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1.
 - (a) Frequent injuries in Wrestling and causes
 - (b) Care : Role of Coach in Prevention of Injuries e.g. Planning, Training, loading, kit, Equipment and Hall
 - (c) Role of Wrestler – Temperament, Knowledge etc.
 - (d) Role of administration
 - (e) Treatment by Coach of Wrestler himself
- 2..
 - (a) Basic methodology of Wrestling training for Juniors
 - (b) Methodical hints for a Coach

(c) Record of performance and critical analysis of movements

3. Women and Wrestling Sport :

a) Gender differences :

- Morphological
- Physiological
- Performance differences

b) Women adaptation to training

- Characteristic of difference and its effects on Wrestling performance

5. Physiology of Wrestling:

- Physique and body composition
- Anaerobic characteristic:
 - i) strength
 - ii) anaerobic power
 - iii) lactate level
 - iv) reaction time and quickness.
- Aerobic characteristics:
 - i) cardio vascular
 - ii) pulmonary
 - iii) muscular endurance

6. Qualifying system for Olympics:

- For male
- For female
- Selection criteria for National camps for wrestlers.
- Selection criteria for coaches in the national camps.
- Roll of other supporting persons in the camp ie.:
 - Doctors
 - Masseurs
 - Managers
 - Psychologists/Yoga expert

SECTION- B

Speed in Wrestling :

- a) Meaning of Speed – definition and significance
- b) Different categories of speed
 - Response speed
 - Movement speed
- c) Methodological principles of speed development
- d) Trainability of speed and peak performance in Wrestling

Periodization as result oriented plan :

- a) Meaning and importance
- b) Different periods :
 - Preparatory Period
 - General
 - Specific
 - Competition Period
 - Transition Period
- c) Training contents of different periods
- d) Training schedule for senior National Campers for major international competitions.

Biomechanics:

- (a) Balance in Wrestling
- (b) Disbalancing Advantages and disadvantages
- (c) Use of force
- (d) Leverages
- (e) Biomechanical analysis of Wrestling, techniques and of most prevalent Actions of modern Wrestling.
- (f) Reasons for frequent use of prevalent actions in today's competitions- Specific advantages

Development aspect of Mini Wrestling:

- development of wrestling at school level
- systematic development of wrestling in organized center i.e. SAI Hostels etc.
- organization and competition rules for Mini Wrestling.
- Different stages of growing wrestlers and their training implications.

Means of evaluation in wrestling:

- General tests for different motor abilities.
- Specific tests for mat performance.

Evaluation of performance of wrestlers in competition:

- through direct observation
- through video analysis.

SUGGESTED READINGS

1. Free style and Greco-Roman Wrestling, R. Pitrov, FILA, 1986.
2. Teaching and Coaching Wrestling, Dr. David Camaione and Dr. K. Tillman
3. Olympic Solidarity Course, M. Dusson, FILA, Paris, 1985.
4. Wrestling is a man's game by Sergei Preobra Zhenski, Moscow, 1981.
5. Introduction to Sports Biology, Dr. J. Reh, DHFK, GDR, 1972.
6. Olympic Solidarity Course, Lectures by Dimitri Mindiaschvili, USSR.
7. Olympic Solidarity Course, FILA, 1985, Martinctti 8. DHFK Journal 1/87.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – III - SPORTS SPECIALIZATION (OPTION-I- WRESTLING)

PAPER CODE: SPCM1203P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Acquiring demonstration ability of all techniques of Rolls and throws
2. Counters of these techniques
3. Combinations of techniques
4. Teaching practice of all Wrestling techniques
5. Officiating practice
6. Mat exercises – Wrestling games and other games as recreational activity and gymnasium work.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – I SEMESTER – II

PRACTICAL PAPER – IV- PROJECT

SPCM1204P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

i Procedure (Minimum Word - 300)

It will consist of procedure and planning of the activity/task/ work - selection of subjects, collection of data, administration of tools and statistical procedures.

S. No.	Topic	Author	Objectives	Method/tools	Participants	Results

M.Sc. Sports Coaching

THIRD SEMESTER

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – I - SPORTS BIOCHEMISTRY & NUTRITION

Paper Code: SPCM2301T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION– A

- 1. SKELETAL MUSCLE STRUCTURE AND FUNCTION:** Skeletal muscle - structure and function, Biochemical composition, Molecular basis of muscle contraction, Muscle fibres - types and biochemical characteristics.
- 2. BIOENERGETICS:** Introduction, ATP - “energy currency” of the body, ATP-CP system, Concept of metabolism, anabolism & catabolism.

3. **METABOLISM IN EXERCISE:** Metabolism - Carbohydrate, Lipid, Protein, Integration of exercise metabolism, factor affecting exercise metabolism.
4. **INTRODUCTION TO NUTRITION:** Introduction, Functions of food, Food groups, Balanced diet, Nutrients- Classification
5. **CARBOHYDRATES:** Introduction, Digestion absorption & utilization of CHO, Role in Sports, Classification & Types, Sources, requirement and recommendations, Glycemic index of food.
6. **LIPIDS:** Introduction, Digestion absorption & utilization of lipids, Role in Sports, Classification & Types, Sources, requirement and recommendations, Essential & Non-essential fatty acids.
7. **PROTEINS:** Introduction, Digestion, absorption & utilization of proteins, Role in sports, Classification & Types, Sources & requirement and recommendations
8. **VITAMINS & MINERALS:** Introduction, Classification & Types, Role in sports, Sources, Deficiency disorders/Toxicity & preventive measures, RDA.

SECTION-B

1. **ENDOCRINE SYSTEM IN EXERCISE:** Introduction, Hormones - Classification Modes of action, Response to exercise, Hormone & substrate mobilization during exercise, Metabolic regulation in sports and exercise.
2. **TRAINING ADAPTATION:** Biochemical adaptation to sports training, Adaptation of energy metabolism - anaerobic training and aerobic training
3. **FATIGUE:** Biochemical factors and mechanism of fatigue, methods of recovery

4. **BIOCHEMICAL ASSESSMENT OF ATHLETES:** The Blood - Aims & Scope of the biochemical assessment, Classes of biochemical parameters - Iron status, Metabolites. Enzymes, Hormones, Vitamins, Minerals.
5. **FLUIDS & ELCTROLYTES:** Introduction, water balance - losses and gain, Importance of hydration, consequences of dehydration and overt hydration, Hydration - methods, assessment,
Electrolytes and maintenance, hydration strategy
6. **ASSESSMENT OF NUTRITIONAL STATUS:** Dietary Assessment methods, Introduction to report generation and interpretation
7. **WEIGHT MANAGEMENT:** Obesity and associated disorders - Causes & risk factors of cardiovascular diseases, Weight loss, weight gain and weight control, Introduction to weight making
8. **EATING DISORDER:** Anorexia, Bulimia, LEA, RED-S
9. **ENERGY AND NUTRITIONAL REQUIREMENT IN SPORTS**
10. **DIETARY MODIFCATION IN SPORTS:** Nutrition Periodization - Introduction, Training diets - Competition diets – Pre, during and Post competition.
11. **SUPPLEMENTS:** Introduction, Classification, Safe Ergogenic Aids

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – I - SPORTS BIOCHEMISTRY & NUTRITION

Paper Code: SPCM2301P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Interpretation of biochemical parameters
2. Estimation of Blood group
3. Estimation of Blood glucose
4. Estimation of Hemoglobin
5. Plan a balance diet
6. Plan a diet for an athlete
7. To calculate energy intake and energy expenditure
8. Pre, during & Post competition diet.

BOOKS RECOMMENDED

1. Biochemistry Primer for exercise Science by Michael E. Houston, Publisher- Human Kinetics
2. Exercise Biochemistry by Vassilis Maugios , Publisher- Human Kinetics
3. Lehninger's Principles of Biochemistry by David L Neilson & Michael M. Cox, Publisher W.H. Freeman & company New York
- 4.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – II - SPORTS PSYCHOLOGY

PAPER CODE: SPCM2302T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

1. Introduction to Sports Psychology

- a. Sport Psychology as an applied branch of Psychology
- b. Dimensions of Human behavior
- c. Methods of assessing sports behavior
- d. Development of sports psychology in various countries including India
- e. Current concerns and future directions in Sport Psychology

2. Psychology of Motor Learning

- a. Learning and its definition
- b. The concept of motor learning: Psycho motor and perceptual motor learning
- c. Stages in acquisition of motor skills
- d. Primary and secondary laws of learning.

- e. Factors affecting motor learning
- f. Transfer of training, its types and its application in sports
- g. Measurement of motor learning and learning curves
- h. The phenomenon of plateau in motor learning, its causes and remedies

3. Cognitive Processes in Sports

- a. Meaning and mechanism of cognitive processes
- b. Role of sensation, perception, thinking, attention, concentration, intelligence and decision making in sports.
- c. Techniques of cognitive control and cognitive behavior modifications

4. Emotional processes in Sports

- a. Meaning and behavioral manifestations of emotion
- b. Psycho physiology of emotions
- c. Arousal performance relationship in sports – Theories and application
- d. Pre competition anxiety – assessment and remedies

5. Psychology of Peak Performance

- a. Motivation and goal setting
- b. Various psychological explanations of sports motivation
- c. Types of motivation – Intrinsic v/s Extrinsic, Achievement motivation and achievement goal orientation
- d. Maslow's need hierarchy theory of motivation
- e. Self – Efficacy, peak performance and Flow
- f. Techniques of motivation for obtaining peak level performance

6. Personality development through Sports

- a. Meaning, definition and structure of Personality
- b. The concept of Athletic Personality
- c. Role of sports in personality development

SECTION B

1. Psycho Diagnostics in Sports

- a. Meaning and importance of Psycho Diagnostics in sports
- b. Nature and types of Psychological tests: General and Sport specific tests
- c. Administration and interpretation of psychological tests scores
- d. Construction of Psychological tests and inventories

2. Stress

- a. Mechanism of stress
- b. Causes and symptoms of stress

- c. Effect of Psychological stress on performance
- d. Techniques of Stress management

3. Psycho regulation in Sports

- a. Meaning and importance of Psycho-regulation in sports
- b. Psychological Counseling and Psycho therapeutic methods
- c. Conditioning methods: Systematic Desensitization, Thought Stopping, Flooding and Modeling
- d. Relaxation Techniques: Simple relaxation, progressive muscular relaxation, Autogenic Training, Meditation and yogic exercises
- e. Biofeedback: Concept, Types of biofeedback and its use in relaxation training and monitoring
- f. Role of Imagery in Sports- Types of Imagery and its importance for enhancing performance

4. Psychological preparation for competitions

- a. Meaning and importance of Psychological preparation in sports
- b. Various steps of Psychological preparation
- c. Immediate, short term and long term Psychological preparation

5. Psycho social dimensions of Sports

- a. Psycho social nature of sports
- b. Psychosocial dynamics of sports: Co-action, Cooperation and competition
- c. Team Cohesion and Sociometry
- d. Leadership and Communication in sports teams
- e. Sports Audience, nature, types and influence on sports performance

6. Psychological Research in Sports

- a. The aims and importance of psychological research in sports
- b. Nature of Psychological research
- c. Current areas of research in Sport Psychology
- d. Tests and equipment available in India to conduct such research

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – II - SPORTS PSYCHOLOGY

Paper Code: SPCM2302P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Measurement of Simple, Complex, and Choice reaction time.
2. Assessment of Competition Anxiety in Sports.
3. Relaxation Techniques – Progressive Muscular Relaxation and Autogenic Training.
4. Biofeedback aided stress reduction in athlete.
5. Imagery in Sports
6. Achievement Motivation in Sports
7. Effect of Knowledge of results on Athletic performance.
8. Assessment of group interaction processes through sociometry.

SUGGESTED BOOKS

1. Advances in Sports Psychology by Thelma S. Horn: Human Kinetics Publishers.
2. Psychology in Contemporary Sport by B.J. Cratty: Englewood Cliffs, NJ: Prentice Hall.
3. Psychological Preparation and Athletic Excellence by B.J. Cratty: Movement Publications Inc.
4. Psychological Foundations of Sport by J.M. Silva and R.S. Weinberg: Human Kinetics Publishers.
5. Psychological Dynamics of Sport by L.D. Gill: Human Kinetics.
6. Psychology in Sport: Methods and applications by R. Suinn: Minneapolis Burgess.
7. Coaches Guide to Sports Psychology by R. Martens: Human Kinetics.
8. Handbook of Research in Sport Psychology by R.N. Singer, M. Murphy & L.K. Tennant: St. Louis, MO Macmillan.
9. Foundation of Sport & Exercise Psychology by R.S. Weinberg & D. Gould: Human Kinetics.
10. Psyched to Win by R.M. Nideffer: Human Kinetics.
11. Psychology & its Application in Sports by S.P. Sahni: D.V.S. Publications.
12. In Pursuit of Excellence by T. Orlick: Human Kinetics.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III
THEORY PAPER – III - SPORTS MEDICINE

Paper Code: SPCM2303T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Sports Medicine:

- Definition and Scope of Sports Medicine
- Sports Medicine team and integrated athlete health care
- Concept of Exercise is Medicine

2. SPORTS ILLNESS:

- Infectious Diseases, Prevention and Management
- Personal Hygiene, Hygiene of Sports Fields and Installations
- Medical illness in sports

3. FATIGUE, RECOVERY AND OVERTRAINING IN SPORTS

- Theory of Super compensation- Fatigue and Recovery
- Etiology and signs and symptoms of fatigue
- Recovery methods in sports and recovery monitoring.
- Overtraining- definition, diagnosis and management.

4. WOMEN IN SPORTS

Biological Factors affecting Sports Performance in Female Athletes –
Anatomical, Physiological, Biomechanical Psychological.

SECTION-B

5. SPORTS TRAUMATOLOGY

- Sports injuries- classification, causation and mechanisms.
- Injury prevention – pre participation medical evaluation, Risk factors and preventive measures
- Load monitoring and sports specific injury prevention programs
- Common sports specific injuries.

6. SPORTS INJURY MANAGEMENT

- On field management and first aid.
- Principles of Physiotherapy and its application in the managements of sports Injuries.
- Physiotherapy modalities- Electro therapy, Exercise therapy, Manual Therapy, Cryotherapy and Hydro therapy.

7. REHABILITATION IN SPORTS

- Definition, Principles and stages of Rehabilitation.
- Return to play in sports.
- Rehabilitation protocols for common sports injuries

8. DOPING IN SPORTS

- Definition, Dope Control and Result management
- Prohibited list, Hazards of Prohibited Substances and TUE
- Roles and Responsibilities of athletes and support staff personnel
- Antidoping education and awareness

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – III - SPORTS MEDICINE

Paper Code: SPCM2303P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. First Aid and CPR
2. Demonstration of Recovery methods
3. Taping & Bandaging
4. Sports Massage
5. Exercise Therapy
6. Manual Therapy
7. Dope Sampling Method & Criteria

RECOMMENDED BOOKS:

1. Oxford text book of Sports Medicine by Mark Harries, Clyde Williams, Williams Stanish & Lyle. J.Micheli.
2. The Olympic book of Sports Medicine by Dirix, H.G.Kunttgen & K.Tittle
3. Sports Medicine by Richard. H.Strauss
4. The Physiological Basis of Physical Education & Athletics by Edward L.Fox, Richard.W.Bowere, Merl. L Foss.
5. Exercise Physiology by William D.McArdle, Frank. I. Katch, Victor.L.Katch 6. Physiology of Sports by T-Reilly, N.Secher, P.Snell. C. Williams

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – II SEMESTER – III
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-A- ATHLETICS)
PAPER CODE: SPCM2304T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

Key performance indicators (KPI) in throws

- Common technical & biomechanical aspects in throws
- Tests and test norms
- Test norm for junior athletes
- Designing long term plan with using KPI

Biomechanical analysis of hammer throw

- Release parameters
- Single and double support phase in each turn
- Angle of twisting in each phase
- Azimuthal angle in single and support phase

Biomechanical analysis of discus throw

- Duration of different phases
- Hip shoulder axis at key positions
- Style of release

Biomechanical analysis of javelin throw

- Duration and distance of impulse and delivery stride
- Release phase

SECTION-B

Biomechanical analysis of linear and rotation shot put

- Release parameters
- Duration of different phases
- Path of the shot during different phases

Aerodynamics and flight characteristics in discus and javelin throw

- Release parameters
- Lift and drag

SUGGESTED READINGS

1. Geoffrey H.G.Dyson, The Mechanics of Athletics Hodder and Stoughton London Sydney Auckland Toronto 1977.
2. Ken Doherty, Track and Field Omnibook Tafnews Press, PO Box 296 Los Allos 940 CA 22 USA
3. F.Wilt and T.Ecker : International Track Coaching Encyclopaedia Parker Publishing West Myack, N.York.1970.
4. Howard Payne : Athletes in Action Palham B.Bedford Square London WBCIB 3 DU 1985.
5. Jess Jarver : Middle Distances-Tafnews Press
6. F.Wilt & T.Ecker : International Track & Field Coaching Encyclopaedia-Parker Publishing Company Inc.West Nyack, N.York 1970.
7. Track & Field Quarterly Review (Vol.82, No.2, summer 1983) Track and Field Association, USA, 10920 Ambassdor Drive Suite 302, Kensas City, Missouri 64153.
8. Track and Field Quarterly Review USA.
9. Wilbur L.Ross. The Hurdle Bible, Santana Printing Company 3rd Edition 1978.
10. Wilt Fred : The Throws 1974, 1980 (Tafnew Press California)

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-A: ATHLETICS)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

Training of Shot Put:

The annual periodization of different motor abilities

- Development of strength of shot putter
- Adaptation phase
- Maximum strength phase
- Conversion phase
- Maintenance phase
- Organization of micro, meso and walk cycles
- Preparation of a Shot putter in modern age specialization has become very specific
- Concept of efficiency for the Link of training
- Control at organization of load index.

Training of Hammer:

- Annual periodization of different motor abilities around the year
- Systematic development of strength of a Hammer thrower
- Control and organization of load dynamics
- Systematic technical training of a Hammer thrower during different phases of training.

Training of Discus /Javelin Throw:

- Annual periodization of different motor abilities
- Different stages of strength development of a young Discus/Javelin thrower
- Kinetical analysis of elite discus/Javelin throwers
- New trends of the training of discuss and javelin throwers
- Organization of meso, micro and mega cycle
- Demand profile of elite Discus thrower
- Specific technical training of elite Discus thrower

- Talent identification
- Tests and evaluation of performance.

SUGGESTED READINGS

1. Geoffrey H.G.Dyson, The Mechanics of Athletics Hodder and Stoughton London Sydney Auckland Toronto 1977.
2. Ken Doherty, Track and Field Omnibook Tafnews Press, PO Box 296 Los Allos 940 CA 22 USA
3. F.Wilt and T.Eeker : International Track Coaching Encyclopaedia Parker Publishing West Myack, N.York.1970.
4. Howard Payne : Athletes in Action Palham B.Bedford Square London WBCIB 3 DU 1985.
5. Jess Jarver : Middle Distances-Tafnews Press
6. F.Wilt & T.Ecker : International Track & Field Coaching Encyclopaedia-Parker Publishing Company Inc.West Nyack, N.York 1970.
7. Track & Field Quarterly Review (Vol.82, No.2, summer 1983) Track and Field Association, USA, 10920 Ambassdor Drive Suite 302, Kensas City, Missouri 64153.
8. Track and Field Quarterly Review USA.
9. Wilbur L.Ross. The Hurdle Bible, Santana Printing Company 3rd Edition 1978.
10. Wilt Fred : The Throws 1974, 1980 (Tafnew Press California)
11. New Glides in Athletics – IAAF Publication
12. Track Coach USA

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – II SEMESTER – III
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-B- BASKETBALL)
PAPER CODE: SPCM2304T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Scope and methods of research in Basketball:
 - a) Trends in the development and use of technique
 - b) Trends in the development and use of offensive and defensive tactics
(individual, group and team)
 - c) Means and methods of developing various general and specific motor abilities
 - d) Effect of various methods of teaching technique and tactics

- e) Impact of rule changes on the technical, tactical strategic and physical/physiological aspects of the game and the players
 - f) Construction and validation of tools (tests/rating scales) for evaluating technical/tactical abilities of basketball Players.
 - g) Assessing the physical and physiological demands placed on the basketball players during competitive games.
 - h) Effect of various methods of training on the development of specific motor abilities of basketball players.
 - i) Studying the anthropometrical, physical, physiological, psychological, bio-mechanical etc. profiles of basketball players.
 - Procedure, means and methods of selection of talent.
 - Impact of different teaching and training aids for development of
 - Technique and tactics
 - Trends in the development of various ground and equipment facilities and their impact on players and the game.
2. Trends in development and use of audio-visual and other teaching and training aids in basketball:
- a) Video films on teaching and training of techniques and tactics (video analysis Of games-national championships, FIBA Qualifiers, Asia Cup, World cup, Olympics, Commonwealth games, etc.)
 - b) using of coaching board and its advantage (special situation play and change of strategy)
 - c) Use of computer and developing software for analyzing the performance of individual players and teams.
1. Identification of talent (to introduce to the game), selection of talent for training and selection of team:
- a) Diagnostic methods of assessment through tests and measurements and prediction of performance
 - b) Methods of complex investigation of players
 - Physical Fitness tests
 - Skill tests
 - Tactical and competitive abilities through expert rating on the basis of performance during competitions through statistical information
 - Selecting the starting five & deciding team composition

2. Principles and methods of development of mental pre-requisites of a basketball players and team
 - a) Principles of development of (motivation) interior and positive attitude
 - b) Development of will power and moral qualities in the training process
 - c) Development of functional mental performance pre-requisites

SECTION-B

1. Planning and evaluations of the training process in basketball :
 - a) Tests and significance of the planning of training
 - b) Basic forms and types of training plans
 - c) Preparation checking and evaluation of the training
 - d) Planning of individual training programme
 - e) Planning of team training programme
2. Preparation for competitions in Basketball
 - a) Importance and planning of competitions
 - b) Preparation of competitions
 - c) Coaching during the game
1. The system of long term training- Basics of long term training systems :
 - a) Initial training
 - b) Preliminary basic training
 - c) Specialized basic training
 - d) Maximum realization of individual abilities
 - e) Maintenance of achieved performance.
2. Periodicity of annual training in basketball analysis of various systems prevailing in different countries and modern trends :
 - a) Single periodization
 - b) Double periodization – triple periodization
 - c) Composite and integrated training throughout the year.

3. Analysis of team tactics in modern basketball
4. Principles and methods of teaching and training of offensive and defensive team tactics :
 - a) Fast break (including early offense) and defense against fast break
 - b) Set plays against man-for-man defense
 - c) Set plays against zone defenses
 - d) Modern zone defenses with various formations
 - e) Aggressive man-to-man defense

SUGGESTED READINGS

1. The theory and science of Basketball by D.Siedentop and J.M.Cooper, Leo & Febiger, Philadelphia, 1975.
2. Scientific principles of coaching by John Bunn, Prentice Hall Publication, New Jersey, 1986.
3. Practice modern Basketball by J.R.Wooden, New York, 1980.
4. Basketball Multiple Offense and Defense by D.C.Smith and R.B.Spear
New York, 1982.
5. Conditioning for Basketball by Pall Foster

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-B: BASKETBALL)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Projects developing proforma/chart to record performance of in training and competitions with regards to technique, tactics and subjective/objective information.
2. Construction of skill and specific motor ability tests and evaluation of tests.
3. Teaching practice/Officiating (3 men officiating)
4. Development of conditioning through self developmental plan

SUGGESTED READINGS

1. The theory and science of Basketball by D.Siedentop and J.M.Cooper, Leo & Febiger, Philadelphia, 1975.
2. Scientific principles of coaching by John Bunn, Prentice Hall Publication, New Jersey, 1986.
3. Practice modern Basketball by J.R.Wooden, New York, 1980.
4. Basketball Multiple Offense and Defense by D.C.Smith and R.B.Spear New York, 1982.
5. Conditioning for Basketball by Pall Foste

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-C- FOOTBALL)

PAPER CODE: SPCM2304T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. System of Play :

- Definition of system of play ; system of play in general
- Significance of system
- Development of system of play : initial traces of modern team formation - Development of three-back system of WM formations: Duties of players in this system.
- The 4-2-4 formation and its working
- The 4-3-3 system and its variations – Reasons for adoption and its effect on the game.
- The 4-4-2 & 3-5-2 systems in football – their merits and demerits.
- System and individual player

2. Principles of defense and defensive tactics :

- Delay in Defense and restriction
 - Depth in defense and group tactics of 2 & 3 players
 - Balance in defense and understanding among players
 - Concentration, compactness and team tactics in defense
 - Importance of vital area and funneling in defensive organization
3. Critical study of positional play
4. Reasons and methods of defensive tactics.
- Group tactics in defence: Covering, handing over, off side tactics, team work with Goal Keeper.
 - Team tactics in defence: Reasons and methods of defensive tactics.
- Modern trends in game : Technique, tactics and conditioning
 - Principles of attack (Offence) & offensive tactics

Principles of attack : - Width in attack

- Penetration in attack
- Mobility in attack
- Depth in attack
- Improvisation in attack
- Group tactics in attack : - Defending play of attackers
- Changing and Inter changing of positions
- Switching over and wing play
- Attack from the Centre
- Counter attack
- Importance of getting free in attack :
- Tactics and other factors
- Team tactics in attack : Reasons and methods of offensive play.
- Tactics and other factors.

SECTION-B

1. Ability : Important coordinative abilities required in football, means and methods
2. (Coordinative methods of development abilities)
3. Flexibility: Role of flexibility in the game. Training means and methods.
4. Testing & Evaluation: Tests for different motor abilities for footballers during training to monitor progress.

- Specific physical fitness tests for
 - o Strength
 - o Flexibility
 - o Speed o Endurance
 - o Coordinative abilities

5. Coaching of tactics and coaching methods :

- Methods of concentricity
- Method of freeze play
- Method of group of 2,3,4,5,6 etc. in tactical training
- Competition method
- Demonstration and explanation
- Use of Black Boards
- Use of Magnetic boards
- Use of Video film
- Use of Computer skills

6. Area of field and coaching of tactics

- Offensive tactics coaching
- Defensive tactic coaching

Age Group Training :

- Technique, tactical and conditional training.
- Under 6 years
- Under 8 years
- Under 10 years
- Under 12 years
- Under 14 years
- Under 16 years
- Under 18 years

- Phases and level of training in different age groups - Competition during age group training :

- Why and in which age group it is essential
- Advantages and disadvantages of competition in age group training.

- Re-starts :
- Importance of re-starts in modern game
- Offensive behaviour at Corner kick
- Offensive behaviour at Free Kicks - Offensive behaviour at Throw-ins.
- Importance of restarts in the modern game
- Defensive behaviour during corner kick
- Defensive behaviour during free kick
- Defensive behaviour during Throw-in
- Percentage contribution in goal scoring from re-start tactics - Group tactics :
- Off-side tactics (Defensive)
- Tactics to counter off-side tactics adopted by opponent
-

SUGGESTED READINGS

1. Heddergott, K.H. New Football Manual, Limpert Verlag, Humberg, 1976.
2. Palli Janos, Modern Football training, draft reproduction, Leipzig, 1968.
3. Wade allen. The F.A. Guide to training and coaching, London, 1976.
4. Batty Fric, Coaching Modern soccer attack, Faber and Faber, London, 1980.
5. Glanville, Brain, The History of World Cups, Times Newspaper Ltd.
6. Huges Charles, Soccer Tactics and skills, British Broadcasting Cooperation,
7. London, 1980.
8. Widdows, Richard, The Soccer Book, Octopus Books Ltd., London, 1981.
9. Widdows, Richard, Soccer Technique and Tactics, The Hamlyn Publishing Ltd.,
10. London, 1982.
11. Bellg, A Tactical soccer for players and Coaches "The Team A.S. Barnes and Company, New Jersey, 1978.
12. The FIFA/COCA-COLA International Academy Part-II, Team : Preparation related to competition football. The FIFA/COCA-COLA World Football Youth
13. Academy. The Football Association's Referee's Chart and Player's Guide to the Laws of the Association Football 1990-91, Pan Books, London and Sydney.
14. Relly T. Clarys J. and Stibble A., Science of Football I & II Vol.1993.
15. Latest FIFA Magazines.
16. FIFA world Cup Report 2002.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-C: FOOTBALL)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching, training and coaching of defensive tactics (individual and group)
2. Teaching, training and coaching of team tactics (Defensive)
3. Teaching, training and coaching of team tactics (Offensive)
4. Defensive tactics during re-starts
5. Suitable minor games
6. Teaching tactics

SUGGESTED READINGS

1. Heddergott, K.H. New Football Manual, Limpert Verlag, Humberg, 1976.
2. Palli Janos, Modern Football training, draft reproduction, Leipzig, 1968.
3. Wade allen. The F.A. Guide to training and coaching, London, 1976.
4. Batty Fric, Coaching Modern soccer attack, Faber and Faber, London, 1980.
5. Glanville, Brain, The History of World Cups, Times Newspaper Ltd.
6. Huges Charles, Soccer Tactics and skills, British Broadcasting Cooperation, London, 1980.
7. Widdows, Richard, The Soccer Book, Octopus Books Ltd., London, 1981.
8. Widdows, Richard, Soccer Technique and Tactics, The Hamlyn Publishing Ltd., London, 1982.
9. Bellg, A Tactical soccer for players and Coaches “The Team A.S. Barnes and Company, New Jersey, 1978.

10. The FIFA/COCA-COLA International Academy Part-II, Team : Preparation related to competition football. The FIFA/COCA-COLA World Football Youth Academy. The Football Association's Referee's Chart and Player's Guide to the Laws of the Association Football 1990-91, Pan Books, London and Sydney.
11. Relly T.Clarys J. and Stibble A., Science of Football I & II Vol.1993.
12. Latest FIFA Magazines.
13. fifa world Cup Report 2002.

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – II SEMESTER – III
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-D- GYMNASTICS)
PAPER CODE: SPCM2304T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Development Trends in Gymnastics :
 - a) Development trends in Women Gymnastics (Apparatus, skills, technique, Code of Points and Physique)
 - b) Development trends in Men Gymnastics (Apparatus, skills, technique, Code of Points and Physique)
2. Talent Identification and Development in Gymnastics.
3. Beat swing and Pendulum swing (their effects, advantages, kinds and procedure of performing)
4. Structure of gymnastics movements:

- its aims and objective
- different phases and their relation with each phases

5. Structural Group of Exercises (classification of Gymnastics Exercises)
 - a) Structural group of swing exercises (Basic technique and information of up start, up rise, take off, balance over, rolling, back up and rotatory and leg swing movements).
 - b) Structural group of strength exercises (Basic technique and information of lowering, raising and holding movements).
 6. Role of push off (hand push off) abilities in gymnastics and specific training program to develop it.
 7. Role of take-off abilities in gymnastics and specific training program to develop it.
-
1. Physical and Physiological connections of gymnastics Movements:
 - a) Functions of Head, Arms, Trunk and Legs.
 - b) Breathing during gymnastics exercises on apparatus
 2. Finer Points to increase scores on each apparatus:
 - a) Formation of routine.
 - b) Beauty and aestheticism in sport
 3. Role of flexibility and coordinative abilities in gymnastics:
 - a) Flexibility
 - b) Coordinative abilities
 4. Specific Training Programme for developing flexibility and coordinative abilities:
 - a) Flexibility
 - b) Coordinative abilities

SECTION-B

1. Mechanics of Swing and Impact (leg impact and take off, arms impact and repulsion).
2. Turning movements (Twisting movements) (various technique, mechanical principles).
3. Biomechanical analysis of flight elements and dismounts

4. Basic principle of refining gymnastics movements
5. Psychological preparation in gymnastics:
 - pre competition
 - during competition
6. Role of gymnastics coach:
 - during training
 - during competition
 - while accompanying the team (inland/abroad)

Technique, technical hints and methodical steps of teaching gymnastic movements on the following apparatus :-

- a) Floor
- b) Pommel horse
- c) Rings
- d) Vaulting
- e) Parallel bars
- f) Horizontal bar
- g) Uneven bars
- h) Beam

1. Growth and Development :
 - a) Various stage of growth and development
 - b) Characteristics/features and gymnastics training programme.
2. Nutrition in Gymnastics :
 - a) Nutritional need of a gymnast
 - b) Role of nutrition in gymnastics
 - c) Pre-competition and pre-activity diet.
3. Technique and methodical steps in teaching Gymnastics elements of “B”, “C” and “D” difficulty on :
 - a) Floor

- b) Vaulting table
 - c) Pommel
 - d) Rings
 - e) Parallel bars
 - c) Horizontal bar
 - d) Uneven parallel bars
 - e) Beam
4. Tests and Measurements:
- Specific tests for measuring strength (Min. strength, explosive strength, Strength endurance), flexibility (active and passive). Coordinative abilities, Static and dynamic balance, time and angle perception.

SUGGESTED READINGS

1. Code of Points Men by FIG Switzerland, 2009 Edition.
2. Code of Points Women by FIG Switzerland, 2009 Edition.
3. Code of Points Rhythmic Gymnastics by FIG Switzerland, 2009 Edition.
4. Technical reglements by FIG Switzerland, 2009 Edition.
5. Fundamentals of Men's friends Gymnastics by Dr.G.S.Bawa, Friends Publication, 1991.
6. Women and Sports Performance by Dr.Kalpana Debnath, Friends Publication, 1991.
7. Salmela J.H.Petiot B., Hosizaki T.Blain, Psychological nurturing and guidance of gymnastic talent, Canada Sports Psyche, Edition, 1987.
8. Coper Phyllis, Trnka Milan Teaching Gymnastic skills to men and women, New Delhi, Surjit Publications, 1982.
9. Men's Gymnastics by Fukushima & Wrio Russel. Faber and Faber London, 1980.
10. Men's Gymnastics coaching manual by Readhead Liovd. Springfield's book Ltd., 1987.
11. Biomechanics of Sports Techniques by James G.Hay
12. Symbol language by FIG, Switzerland, 2009 edition.
13. Training Manual Gymnast by Dr.G.S.Bawa, NIS Publication

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-D: GYMNASTICS)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. To prepare a lesson plan for Teaching, Training and Coaching of gymnastics Advanced skills.
2. Planning of a training motor abilities (general & specific) for Junior gymnasts. 3. Measurement of motor abilities performance of young gymnast of age upto 14 years (male & female)
4. Formation and evaluation of technique of the skills
5. Officiating
6. Video analysis of the gymnastics movements
7. Training of basic gymnastics elements on all the apparatus and conditioning programme, for one's own fitness.

SUGGESTED READINGS

1. Code of Points Men by FIG Switzerland, 2022 Edition.
2. Code of Points Women by FIG Switzerland, 2022 Edition.
3. Code of Points Rhythmic Gymnastics by FIG Switzerland, 2022 Edition.
4. Technical reglements by FIG Switzerland, 2022 Edition.
5. Fundamentals of Men's friends Gymnastics by Dr.G.S.Bawa, Friends Publication, 1991.
6. Women and Sports Performance by Dr.Kalpana Debnath, Friends Publication, 1991.

7. Salmela J.H.Petiot B., Hosizaki T.Blain, Psychological nurturing and guidance of gymnastic talent, Canada Sports Psyche, Edition,1987.
8. Coper Phyllis, Trnka Milan Teaching Gymnastic skills to men and women, New Delhi, Surjit Publications, 1982.
9. Men's Gymnastics by Fukushima & Wrio Russel. Faber and Faber London, 1980.
10. Men's Gymnastics coaching manual by Readhead Liovd. Springfield's book Ltd., 1987.
11. Biomechanics of Sports Techniques by James G.Hay 12. A)Symbol language by FIG, Switzerland, 2022 edition.
B) Symbol language in WAG, FIG Publication,2022
13. Training Manual Gymnast by Dr.G.S.Bawa, NIS Publication, 1999
14. Biomechanic of Women Gymnastics by Gerlad S. George, Prentice Hall, 1980.
15. An advanced study of women gymnastics by Dr. Kalpana Debnath and Dr. G.S. Bawa, Friends Publication 2019

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-E- HOCKEY)

PAPER CODE: SPCM2304T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

- i) Introduction acquisition and factors influencing technique learning
- ii) Technique perfection and the skill development at various stages (age groups)
- iii) Analysis of technique, methods of technique training, individual and group training, relationship between technique, skill and style.

SET PLAYS

Free hits:- Own danger zone, mid field, opponent, opponents danger zone, attack and defence.

The Penalty Corner : The attack and defence
The hit out, stop/deflection, the goal shot/in
direct.

The Corner, Variations.

Penalty Stroke

TEAM AND GROUP SKILLS

Individual skill, Pass, Stop and other skills

Group Skills – Problems, Awareness, understanding

Practising group skills – Tackling, Practising in groups of two or more position under pressure
tactics breaking into parts different moves.

SYSTEM OF PLAY

Evolution and development of systems

Significance of systems, variations in different systems. Merits and demerits

SECTION B

Planning Attacking tactics – Principles

Creating space, opening/stretching the defense

Attack from right wing, left wing or with inner trio into-in play.

Planning Defensive tactics:

Positional play, communication, Possession, constructive. Play, clearing the ball safely, Delaying
the tackle. Cover defense, combination with half backs.

ASSESSMENT OF PLAYERS AND TEAM.

Team Players

The opponent team – Team information, style of play.

Specific players, tempo of play. Set plays

Team tactics

Individual players – technical ability, fitness, temperament.

TESTS OF MEASURE DIFFERENT MOTOR ABILITIES

General – Strength, Speed, Endurance, Flexibility and Coordinative abilities(Agility)

Specific – Tests to measure hockey specific skills

- organizational aspects of competitions in hockey - Committees, duties of committees.
- Different types of fixtures to organize competitions. Drawing of Fixtures.

RECOMMENDED BOOKS

1. Horst Wein, The Advanced Science of Hockey, Pelham Book, London 1981
2. Singh G., Hockey preparing for the future, Safderjung Enclave, N.Delhi, 1997.
3. Cadman John, Games for Hockey Training, Pelham Books London, 1981.
4. Taylor Ian, Behind the Mask, Macdonald Queen, Anne Press, London, 1989.
5. Singh, H., Science of Sports Training, DVS Publication, N.Delhi, 1991.
6. Whitaker, David, Coaching Hockey, The Crowood Press, 1990.
7. Training Manual : Hockey, NIS Publication 2001

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-E: HOCKEY)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Warming up – general and specific
2. Organisation of tests for evaluation of skills level
3. Teaching and training of attacking play
4. Teaching and training of defensive play
5. Teaching and training of set plays

SUGGESTED STUDIES

1. Horst Wein, The Advanced Science of Hockey, Pelham Book, London 1981
2. Singh G., Hockey preparing for the future, Safderjung Enclave, N.Delhi, 1997.
3. Cadman John, Games for Hockey Training, Pelham Books London, 1981.
4. Taylor Ian, Behind the Mask, Macdonald Queen, Anne Press, London, 1989.
5. Singh, H., Science of Sports Training, DVS Publication, N.Delhi, 1991.
6. Whitaker, David, Coaching Hockey, The Crowood Press, 1990. 7. Training Manual : Hockey, NIS Publication 2001

PUNJABI UNIVERSITY, PATIALA
M.SC. SPORTS COACHING
COURSE CODE: SPCM2PUP

PART – II SEMESTER – III
THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-F- SWIMMING)
PAPER CODE: SPCM2304T

External Marks: 70
Internal Marks: 30
Total Marks: 100
Exam. Time: 03 Hours

Teaching Hours: 60
Credit: 04
Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. The Role of sports Nutrition in Swimming Performance.
 - Principles of training diet
 - Energy
 - Diet components; carbohydrates, Proteins, Fats, Vitamins, Minerals, Iron, Calcium, Fluids and electrolytes.
2. Development and training of various motor abilities in water.
 - Strength training
 - Endurance training
 - Speed training

- Co-ordinative abilities training
3. Stroke Drills and technique training.
 - The use of stroke drills in the Swimming practice
 - Butterfly drills
 - Breast stroke drills
 - Freestyle (front crawl) drills
 - Back stroke (Back crawl) drills
 4. Mechanical aspects of Swimming.
 - Resistance,
 - Propulsion,
 - Lift,
 - Drag,
 - Acceleration,
 5. Method of developing general conditioning
 - Principles of general all around physical development
 - Land conditioning principles
 - Methods of development of various motor abilities on land.
 6. Methods of development and analysis of specific conditioning of Swimmers (event specific conditioning).
 7. Principles and means (including Iso-kinetic Swim bench) of developing specific conditioning.

SECTION B

1. Mechanical principles involved in Swimming.
 - Action-Reaction (Newton's third) Law.
 - Principle of Transfer of Momentum
 - The theoretical square law.
 - The Archimedes principle of Floating bodies.
2. Swimming Training; the psychological aspects.

- Motivating the Swimmer for Training.
 - Goal setting
 - Motivating the Swimmer for competition
 - Pre-competition Anxiety and performance
 - Under and over Arousal and performance
3. a) FINA Rules & their interpretation covering swimming; Latest and change if any
- b) FINA Rules governing open water Swimming; interpretation thereof.
- Latest and changes if any
- c). Open Water and channel Swimming.
- Difference from Pool Swimming.
 - Accessories required for open water Swimming
 - English Channel swimming
 - English Channel Swimming preparation.
1. Strategy and tactics in Relay Swimming;
- a) Free style relays
- b) Medlay Relays
2. Strategy and tactics in competitive Swimming events.
- a) Short distance (Sprint) events
- b) Middle distance events
- c) Distance events
- d) Individual Medlay events
3. Competition Performance:
- a) Method of performance analysis
- b) The Pacing
- c) Performance Analysis of
- i) Competition
 - ii) Time Trails

4. Tests for Swimming performance:
 - a) Proficiency tests for starts and turns
 - b) Proficiency tests for legs and arms movements (3x50m.test)
 - c) 57.5 m. test
 - d) Tests for evaluating Basic Endurance
 - e) Tests for Swimming speed (Basic)abilities
 - f) Vertical jump test
 - g) Flexibility tests
 - h) Strength and power tests
 - i) Complex test to determine Swimming fitness.

5. Strategy and tactics in Relay Swimming;
 - a) Free style relays
 - b) Medlay Relays

6. Strategy and tactics in competitive Swimming events.
 - a) Short distance (Sprint) events
 - b) Middle distance events
 - c) Distance events
 - d) Individual Medlay events

7. Competition Performance:
 - a) Method of performance analysis
 - b) The Pacing
 - c) Performance Analysis of
 - i) Competition
 - ii) Time Trails

8. Tests for Swimming performance:
 - a) Proficiency tests for starts and turns
 - b) Proficiency tests for legs and arms movements (3x50m.test)
 - c) 57.5 m. test
 - d) Tests for evaluating Basic Endurance
 - e) Tests for Swimming speed (Basic)abilities
 - f) Vertical jump test

- g) Flexibility tests
- h) Strength and power tests
- i) Complex test to determine Swimming fitness.

SUGGESTED READINGS

1. Counsilman, J.E.: "The Science of Swimming" Pelham Books Ltd., Bedford Square, London, 1977.
2. Counsilman, J.E.: "Doc Counsilman on Swimming". Pelham Books Ltd., Bedford Square, London, 1981.
3. Counsilman, J.E.: "Competition Swimming Manual for Swimmers and Coaches". Pelham Books Ltd., Bedford Square, London, 1982.
4. The New Science of Swimming: Counsilman J.E, Counsilman Brian E.
5. David; G.T.: "Swimming Steps to success". Leisure Press, Champaign Illcons, 1978.
6. Hogg, J.M.: "Land conditioning for Swimmers" E.B. Publishing Co., Great Britain, 1969.
7. Maglicho, E.W.: "Swimming Faster". Malyfield Publishing Company, Polo Alto, California, 1982.
8. Maglicho, E.W.: "Swimming Even Faster". Magfield Publishing Company, Palo Alto, California, 1990.
9. Singh, H.: "Sports Training: General Theory and Methods". NIS Publication, Patiala, 1984.
10. Singh, H.: "Science of Sports Training" D.V.S. Publication, New Delhi, 1991.
11. FINA Hand book: "Constitution and Rules: Swimming, Open Water Swimming, Diving, Water Polo, Synchronized Swimming, Masters, Facilities, Medical and Doping" FINA Hand Book, 2009- S.F.I. India, .

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – III- SPORTS SPECIALIZATION (OPTION-F: SWIMMING)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Methods and means of carrying out general and specific warming up and competition warm up.
2. Application and evaluation of specific motor quality tests.
3. Projects for preparing training schedules for different levels of performance.
4. Observation and analysis of performance in :
 - a) Competition
 - b) Time trails
5. Officiating and organizing the competition.

SUGGESTED READINGS

1. Counsilman, J.E.: “The Science of Swimming” Pelham Books Ltd., Bedford Square, London, 1977.
2. Counsilman, J.E.: “Doc Counsilman on Swimming”. Pelham Books Ltd., Bedford Square, London, 1981.
3. Counsilman, J.E.: “Competition Swimming Manual for Swimmers and Coaches”. Pelham Books Ltd., Bedford Square, London, 1982.

4. The New Science of Swimming: Counsilman J.E, Counsilman Brian E.
5. David;G.T.: "Swimming Steps to success". Leisure Press, Champaign Illcons, 1978.
6. Hogg.J.M: "Land conditioning for Swimmers" E.B.Publishing Co.,Great Britain, 1969.
7. Maglicho, E.W: "Swimming Faster". Malyfield Publishing Company, Polo Alto, California, 1982.
8. Maglicho, E.W: "Swimming Even Faster". Magfield Publishing Company, Palo Alto, California, 1990.
9. Singh,H: "Sports Training: General Theory and Methods".NIS Publication, Patiala,1984.
10. Singh,H: "Science of Sports Training" D.V.S.Publication, New Delhi,1991.
11. FINA Hand book: "Constitution and Rules: Swimming, Open Water Swimming, Diving, Water Polo, Synchronized Swimming, Masters, Facilities, Medical and Doping" FINA Hand Book,2009- S.F.I.India, .

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

PAPER CODE: SPCM2304T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Specialized training for:
 - a. Attackers (counter/outside hitter, quick attacker and universal) b. Blockers
 - c. Setter
 - d. Libero
2. Methods and procedure for competition performance analysis for own team and opponent:
 - a. Statistical match analysis.
 - b. Through VIS system.
 - c. Court diagram.

- d. Setting up rating scale.
 - e. Flow chart.
 - f. Through video analysis.
- 3. Factors determining competition performance.
- 4. Performance control measure during competition.
- 5. Performance control measures during competition:
 - a. Preparing scouting report.
 - b. Match plan and its execution.
 - c. Mental training.
 - d. Warm up.
 - e. Communication
 - f. Exploitation of rule and officiating.
- 6. Talent identification:
 - a. To introduce to the game.
 - b. For long term training.
 - c. For specialization.
 - d. For the selection of national camps.
 - e. For the teams of various level.

SECTION – B

- 1. System of conditioning exercises:
 - a. Classification of exercises
 - b. Terminology and exercise illustration techniques.
 - c. Exercise variation and dominant effect (purpose and tool for exercise variation).
 - d. Structural analysis of exercise in relation to space time and force.
 - e. Exercise chain.
- 2. Development of aerobic and anaerobic endurance with music:
 - a. Floor exercises
 - b. Exercises with boxes.

- c. Exercises using additional weight.
3. Physical, technical, tactical and psychological training for children, beginners, youth and women.
4. Plyometric training :
- a. Pro and cone in plyometric training.
 - b. Plyometric exercises for beginner and advance.
 - c. Dosage of
5. Planning of training process for national level player in volleyball:
- a. Training concept
 - b. Olympic plan
 - c. Yearly plan
 - d. Meso and micro cycle plan
 - e. General requirement and steps for planning.
 - f. Periods/phases of annual plan and their characteristics.
 - g. Dosages of training
 - h. Modern trends in periodisation of training plan in volleyball.
6. Strength training for volleyball player for high performance – new trends.
7. Sequential development of specific motor abilities for various durations of camps – critical analysis.
8. Critically analyze the limitations and possibilities in the development of motor abilities in respect of duration of training, height of player, training state and gender differences.
9. Sensitive phase (in respect of age) for the development of various motor abilities.

SUGGESTED READINGS

- 1. K. Nicholls, Modern volleyball, Henery Kimption Publisher, London, 1973-78.
- 2. Fraser, strategies for competitive volleyball, Human kinetics Publisher Illinois 1980.
- 3. Volleyball technical journals, Canadian volleyball association 333, River Rd, Venier Ontario, kill 889.

4. Level 3 coaches manual, 1979.
5. Aries Selinger's power volleyball, st martin's press, 175 fifth avenue, new York, N.Y. 10010, USA.
6. Gurbakash S. Sandhu, volleyball basic and advanced, the sports people publishers of sport literature 3321, sector 15D, Chandigarh.
7. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
8. International coaches manual, federation international de volleyball, avenue, de la gare- 12CN- 1001,1989/90.
9. Level 1 coach manual, Canadian volleyball association, 333 river road, Venier, Ontario Canada, kil 889-1983.
10. Level 2 coaches manual 1983

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

- a. Outside hitter
 - b. Centre blocker/ quick attacker.
 - c. Server
 - d. Libero
 - e. Back court attacker/ all rounder/ universal player
 - f. Setter
2. Training of playing systems:
- a. 4-2 system
 - b. 5-1 system
 - c. 6-2 system
3. Reception systems:
- a. 4 men reception system
 - b. 3 men reception system
 - c. 2 men reception system
4. Attack combinations when setter is from back court/ penetrating.
5. Blocking tactics:
- a. Single, double and triple block.
 - b. Zonal block
 - c. Man to man block

- d. Commit and read block
 - e. Stag system
- 6. Defense system and tactics:
 - a. 2-1-3 system
 - b. 2-0-4 system
 - c. 3-0-3 system
- 7. Covering the attack and tactics:
 - a. 1-2-3 system
 - b. 1-3-2 system

SUGGESTED READINGS

1. K. Nicholls, Modern volleyball, Henery Kimption Publisher, London, 1973-78.
2. Fraser, strategies for competitive volleyball, Human kinetics Publisher Illinois 1980.
3. Volleyball technical journals, Canadian volleyball association 333, River Rd, Venier Ontario, kill 889.
4. Level 3 coaches manual, 1979.
5. Aries Selinger's power volleyball, st martin's press, 175 fifth avenue, new York, N.Y. 10010, USA.
6. Gurbakash S. Sandhu, volleyball basic and advanced, the sports people publishers of sport literature 3321, sector 15D, Chandigarh.
7. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
8. International coaches manual, federation international de volleyball, avenue, de la gare- 12CN- 1001,1989/90.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-H- WEIGHTLIFTING)

PAPER CODE: SPCM2304T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. The pre contest phase
 - i) Understanding the primary conditions of the competition. The rules of Weightlifting
 - ii) Getting to know the weightlifter
 - iii) Making weight
 - iv) Preparing for drug tests
 - v) Dietary considerations before a competition
 - vi) Pading the competition bag

vii) Travel and adapting to the competition environment

viii) Pre-competition- Head games

2. The actual competition

- i) Determining the number of warm up attempts
- ii) Warm up and mental control
- iii) Timings of warm up sets
- iv) Planning the warm up poundage between sets
- v) Using tactics to win

3. Post-Competition:

- i) Performance analysis and competition report
- ii) Liabilities towards weightlifters
- iii) Control and management of weightlifting

IWF, IOC, IOA, SAI, Sports Ministry, Boards and State Associations

4. Recovery methods used in Weightlifting.

- i) Nutrition means of recovery
- ii) Pedagogical means of recovery
- iii) Pharmacological means of recovery
- iv) Therapeutic means of recovery
- v) Massage
- vi) Yoga
- vii) Functional music
- iii) Psychological
- ix) Natural means
- x) Physiotherapy
- xi) Post competition and training recovery

1. Assistance exercise - the general purposes and four cautions about assistance exercises. That is available direct variations of the classical lifts.

Cleans, Jerk from the Racks, Jerk behind the neck, Power Snatch Power Clean,

Power Jerk, Muscle Snatch or Snatch stretch, muscle clean push press, Dead hang Snatch, Dead hang clean, Drop snatch, Drop clean Drop jerk, Snatching or cleaning from hang or from blocks, Snatch from below the knee, clean from below the knee, snatch from above the knee, snatch standing on a block or with small plates, clean standing on a block or with small plates, varying the grip when lifting and varying speed while lifting.

2. Assistance Exercises related to the classical lifts.

Snatch pulls, clean pulls, combining pulls and lifts. Snatch deadlifts, clean dead lifts, halting snatches, cleans, jerks, pulls dead lifts, partial dead lifts and pulls, pulls and dead lifts standing on a block or with small plates, Good mornings, stiff-legged dead lifts, stiff-legged lifts and pulls, split and squat recoveries and supports, Jerk drives and front quarter squats, over head squats, front squats, back squats and partial squatting.

3. Remedial exercises for strengthening specific muscle groups.

Lunges and related exercises, Leg presses, step up, hodfield or safety squat bar squats, leg extensions and leg curls, hyper extensions and glute-ham exercises, calf raises, sit-ups, presses and dips, grip work, upright rows and shrugs, bent-over rowing exercises, curling, other “Isolation” exercises and resistance exercises performed with machines.

4. General Conditioning Exercises.

- | | |
|--|------------------------------------|
| i) Sprinting and Jumping | ix) Exercises with Gymnastic stick |
| ii) Plyometrics | x) Exercises with Cattle bell |
| iii) Exercises with medicine ball | xi) Exercises with dumbbell iv) |
| Exercises with wall bar | xii) Muscle Building exercises |
| v) Exercises with iron shoes | xiii) Circuit training |
| vi) Exercises with partners | xiv) Exercises on parallel bar |
| vii) Exercises with rope | xv) Exercises on trampoline |
| viii) Exercises with super power Racks | |

SECTION-B

1. Preparation for the training Camp
2. Daily regimen
3. Report writing
4. Individual profiles and documentations

5. Maintenance of documentation
 6. Role and help of various administrative and other agencies to run the camp.
 7. Communication with various agencies
 8. Analysis of the Camper's performance.
-
9. Scientific methods applied in Weightlifting
 10. Critical evaluation of research works, concepts and applications of the exercise sciences for Weightlifting.
-
12. Analysis of the training programmes
 - i) Volume
 - ii) Intensity
 - iii) Sets and repetitions
 - iv) Intensity Co efficient
 - v) Volume Index
 - vi) Intensity index
 - vii) Effort index
 - viii) Frequency of exercises and training sessions
-
13. Research on the training, physical development and investigation on the effectively of the training on the Weightlifters.
-
14. Women and Weightlifting
 - i) Strength differences between men and women weightlifters
 - ii) Training differences between men and women weightlifters
 - iii) Physiological differences between men and women weightlifters
 - iv) The relationship between training and a menorrhea
 - v) The effect of weightlifting activity on menarche
 - vi) Pregnancy and training
 - vii) Psychological and social conditions that can influence women weightlifters
-
15. Weightlifting and Children :
 - i) Growth and maturation
 - ii) Exercise prescription for children

16. Weightlifting and mature athlete
 - i) Loses in physiological functioning with aging
 - ii) Training and mature weightlifter
17.
 - i) The essential nutrients for weightlifters
 - ii) The time factor in nutrition and eating disorders
 - iii) Fasting and short term reduction in food consumption when required
2. Eating to perform well in training and competition
 - i) Eating in the days before competition
 - ii) The pre-game meal
 - iii) Eating during the competition
 - iv) Post competition meal

SUGGESTED READINGS

1. Managing the training of Weightlifters. Laputin Nikolai Translation. Andrew C Charniga, Jr. Sportivny Press 1989.
2. Theory and methodological basis of Training. Planning with special consideration with in a microcycle Translation. Tibor Hartobagyi – Lincoln. NSCA , 1989.
3. Dinosaur Training: Lost secrets of strength and development. Brooks Cubic Kentucky, 1996.
4. A system of multi-year training in Weightlifting, Mevedyev, Sportivny, 1989. 5. Sinhasane Madura. Weightlifting, Reach your zenith, 2008

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-H: WEIGHTLIFTING)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching and training of Olympic classical lifts.
 - a) The Snatch and its phases
 - b) The Clean and its various phases
 - c) The Jerk and its phases
2. Technical analysis of performances of novices and champions
 - a) Faults, causes and correction in Snatch
 - b) Faults causes and correction in Clean
 - c) Faults, causes and correction in Jerk
 - d) Emphasis of functional range of motion in elite weightlifters training: a Practical approach
3. Planning and implementation of specific conditioning programme for different level lifters.
4. Organizing specific works ability tests
5. Organization of specific skill test for young Weightlifters.

SUGGESTED READINGS

1. Managing the training of Weightlifters. Laputin Nikolai Translation. Andrew C Charniga, Jr. Sportivny Press 1989.
2. Theory and methodological basis of Training. Planning with special consideration with in a microcycle Translation. Tibor Hartobagyi – Lincoln. NSCA , 1989.
3. Dinosaur Training: Lost secrets of strength and development. Brooks Cubic Kentucky, 1996.
4. A system of multi-year training in Weightlifting, Mevedyev, Sportivny, 1989.
5. David Webster. Preparing bur competition weightlifting, 1986

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – III

THEORY PAPER – IV- SPORTS SPECIALIZATION (OPTION-I- WRESTLING)

PAPER CODE: SPCM2304T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

Planning :

- i) Sports Calander and planning of Wrestlers Sports Preparation
- ii) Elaboration of Trg. Plan for International competitions.
- iii) Study of problems in Trg. programme in Wrestling – A research
- iv) Organization of planning of athletic preparations

b)

- i) On the age of a Wrestler
- ii) Age and physical development - Growth, Weight, Speed and Strength
- iii) Age and performance
- iv) Age and Training-Early specialization
- v) Sporting longevity

1. Variants in Fitness exercises for Motor Fitness for Wrestlers :

- Warming up and conditioning exercises
- Swimming exercises
- Medicine ball exercises
- Rope exercises
- Staircase exercises
- Wall bars exercises
- Exercises on Horizontal and parallel bars
- Weight training exercises
- Circuit training (General and specific)
- Partner exercises
- Games and Sport
- Cross Country – long and varied distance and so-on.
- Principles of Weight training.

2. Variants in Exercises for Skill perfection in Wrestling :

- Dummy exercises
- Partner exercises

SECTION B

1. Facilities and Equipment :

- i) For Training : Its effects on total performance
- ii) For research : Its contribution towards improvement of performance,
Tests/Controls

2. Intensity of preparation work during the last stage of preparation for Olympic Games.

3. Techniques/Tactics :

- i) Guidance of Technical perfection process of Wrestlers
- ii) Strategical, tactical and technical aspects of Wrestling.
- iii) Teaching, Training of tactics, techniques and fault corrections
- iv) Attack and defence

Training :

- i) Principles of training in Wrestling
- ii) Purpose of training : Development of upto date competition model.
- iii) Nature of Training. for Wrestlers.
- iv) Physical training of Wrestlers : General and specific
 - Strength training : maximum strength/explosive strength and strength endurance
 - Endurance Training : Aerobic/anaerobic special basic endurance.

SUGGESTED READINGS

1. Free Style and Greco-Roman Wrestling, R.Pitrov, FILA, 1986.
2. Teaching and Coaching Wrestling, Dr.David Camaione and Dr.K.Tillman
3. Olympic Solidarity Course, M.Dusson, FILA ,Paris, 1985.
4. Wrestling is a man's game by Sergei Preobra Zhenski, Mascow, 1981.
5. Introduction to Sports Biology, Dr.J.Reh, DHFK, GDR, 1972.
6. Olympic solidarity course, lectures by Dimitri Mindiaschvilli, USSR
7. Olympic solidarity course, FILA, 1985, Martinctti 8. DHF K Journal 1/87.
9. FILA Coaches Science Seminar 1993 Yamagata - Japan
10. Coaching Wrestling Successfully – Gabledan 1999.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – III

PRACTICAL PAPER – IV - SPORTS SPECIALIZATION (OPTION-I: WRESTLING)

Paper Code: SPCM2304P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Methods and means of carrying out general and specific Warming up and competitions warm-up.
2. Application and evaluation of specific motor quality tests.
3. Projects for preparing training schedules for different levels of Wrestlers
4. Observation and analysis of performance
 - a) during trails
 - b) during competitions
5. Officiating and organization of competition

SUGGESTED READINGS

1. Free Style and Greco-Roman Wrestling, R.Pitrov, FILA, 1986.
2. Teaching and Coaching Wrestling, Dr.David Camaione and Dr.K.Tillman
3. Olympic Solidarity Course, M.Dusson, FILA ,Paris, 1985.
4. Wrestling is a man's game by Sergei Preobra Zhenski, Mascow, 1981.
5. Introduction to Sports Biology, Dr.J.Reh, DHFK, GDR, 1972.
6. Olympic solidarity course, lectures by Dimitri Mindiaschvilli, USSR
7. Olympic solidarity course, FILA, 1985, Martinctti 8. DHF K Journal 1/87.
9. FILA Coaches Science Seminar 1993 Yamagata - Japan
10. Coaching Wrestling Successfully – Gabledan 1999.

M.Sc. Sports Coaching

FOURTH SEMESTER

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – I - SCIENCE OF SPORTS

TRAINING:

PAPER CODE: SPCM2401T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION – A

1. **Science of Sports Training:** Introduction and Subject matter of Science of sports Training, Relationship of Science of Sports Training with sports and Sports Science Disciplines.
2. **Sports Training:** Definition of sports training, Aims of sports training, Characteristics of Sports Training, Factors determining quality of training.

3. **General Principles of Sports Training:** Principle of active participation, Principle of Progression of load, Principle of Reversibility, Principle of Individualization, Principle of Scientific and systematic planning, Principle of Progressive specialization, Principle of formulation of training on the basis of prognostic performance and its structure, Principle of cyclicity and Principle of Regulation of training.

4. **Sports Performance:** Nature and definition sports performance, Classification of Sports, Model of sports performance and factors, Inter relationships among, performance, performance capacity and training structure.

Assignment: Preparing Performance structure model of various sports disciplines

5. **Training load:** Definition and Classification of Training Load, Load and super compensation, types of adaptation, factors of Training Load, Judgment of training Load.

Over Training: Over Load, Over Reaching and Overtraining, Symptoms, Causes and remedies of over load.

Assignment: Explain components of load with examples from different group of sports.

6. **Recovery after training and competition:** Nature and Types of Recovery, Recovery process, Means and methods of recovery during Training and Means of Recovery related to before, during and after competition.

7. **Means and methods of Training:** Types and effects of various Means and Methods of training.

Assignment: Examples of General, Special and competition exercises for different sports disciplines.

8. **Strength ability:** Definition, types, factors, preventive measures and methods for improvement of various types of strength.

Assignment: Means of strength training for various types of strength.

9. **Speed ability:** Definition, types, factors, means and methods for improvement of various types of Speed.

Assignment: Speed abilities with examples from sports.

10. **Endurance:** Definition, types, factors, means and methods for improvement of various types of Endurance.

Assignment: Heart rate and Training

11. **Coordinative abilities:** Agility vs Coordinative abilities. Types of coordinative abilities, factors determining coordination performance, and Principles of Training coordinative abilities. Methods to increase degree of difficulty.

Assignment: Coordinative abilities determining performance in Running, Jumping, throwing, catching, Kicking, Cycling, dribbling, shooting in basketball, forward roll.

12. **Flexibility:** Definition, types, factors, means and methods for improvement of Flexibility

Assignment: stretching exercises for major muscle groups.

SECTION – B

1. **Technique, Skill, Style:** Definition of Technique, skill and Style, Motor coordination process, skill acquisition process and Training Implications, Technical error, Methods of correction of an error.
2. **Tactics:** Nature of tactics and Strategy, tactical action and Tactical training
3. **Planning:** Definition, importance, Types, Principles of planning. Steps in formulation of a plan, Planning of various types of plans.

Assignment: Prepare a weekly training programme for your selected sport/Event.

4. **Training session:** Definition, types, Structure and organization of training session.

Assignment: Prepare lesson plan for teaching a skill from your sports

5. **Periodization:** Definition of top form, Training state and Periodization, Top Form and Periodization, Types of periodization, Aims and contents of different periods, Periodization of various motor abilities
6. **Long term Training process:** Need of long term training process. Basic, Advance and High performance Training stages. Training implications during various stages of long term training process.
7. **Monitoring of Sports Training:** Meaning, Importance, types and System of monitoring, motor tests, Documents for monitoring of sports training.

Assignment: Description of commonly used tests for the assessment of various motor abilities

8. **Sports Competitions:** Definition and importance, Types of competitions, Direct preparation for competitions, Competition systems.
9. **Motor Development:** Growth and development process, Trend of motor development during various stages, Training implications.
10. **Talent Identification and development:** Definition, Guidelines for Talent identification and its development, Steps of talent identification.
11. **Peaking in Sports:** Peaking and training state, Factors facilitating peaking, Identifying and maintaining Peak.

PUNJABI UNIVERSITY, PATIALA

M.Sc. Sports Coaching

Course Code: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – I - SCIENCE OF SPORTS TRAINING

Paper Code: SPCM2401P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Means and methods of strength training
2. Means and methods of Speed training
3. Means and methods of Endurance training
4. Means and methods of Flexibility training
5. Exercises / Drills for the development of Coordinative abilities
6. Analysis of Training exercises
7. Commonly used motor tests

Recommended Readings

1. Essentials of Strength Training and Conditioning.
NSCA, (2000). By T.R Beachle and R.W. Earle
2. Theory and Methodology of Sports Training: The Key to Athletic Performance, (1990)
By Tudor O. Bompa.
3. Periodization of Training for sports. Human Kinetics, (1999). By Tudor O. Bompa.
4. Principles of Sports Training. Sportsverlag, Berlin, (1988) By D. Harre.
5. Test and Measurement in Sports and Physical Education.
DVS, New Delhi, (1996) By D.K.Kansal.

6. Science of Strength Training. Sports Publication, New Delhi, (2006) By K.P. Manilal.
7. Planning in Sports. Sports Publication, New Delhi, (2008) By K.P. Manilal
8. Fundamentals of Sports Training. Moscow,(1984) By L.P. Matweyev.
9. The Oxford Dictionary of Sports Sciences and Medicine.
Oxford University Press Inc. New York, (1994) By Michel Kent.
10. Circuit Training. Sportsverlag, Berlin, (1988) M.Scholisch.
11. Sports Training: General Theory and Methods. NIS, Patiala, (1984) By Hardayal Singh.
12. Science of Sports Training. DVS Publication, New Delhi, (1991). By Hardayal Singh.
13. Designing Resistance Training Programs. Human Kinetics, (1997) By Steven J. Fleck and
William J. Kraemer (Second Edition)

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-A- ATHLETICS)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

Steeple Chase:

- Characteristics of steeple chaser
- Bio-Mechanical principles involved in hurdle and water jump clearance
- 'LAG TIME'
- Strategy of tactics in the steeple chase

Road Race, Cross Country

- Bio-mechanical difference in between Road Race, Cross Country runners
- Physiological demands of road race, cross country

Marathon

- Characteristics of Marathon runner
- Bio-Mechanical aspect of marathon
- Nutritional aid; Pre, post and during competition of marathon

Race Walking:

- Characteristic of race walker
- Bio-mechanical principles involved in race walk
- Planning and periodization for marathon training:

SECTION-B

Training of Middle Distance/Long distance runner

- Physiological Aspects of Middle and Long Distance
- Psychological Aspects of Middle and Long Distance
- Trend of Performance of Middle Distance and Long Distance
- Bio-Mechanical Analysis of. Runners
- Planning of Per iodization in Middle Distance, Long distance runners

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-A: ATHLETICS)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

Middle and Long distance running steeple chase, race walk

1. Teaching, Coaching and training of steeple chase
2. Teaching, Coaching and Training of Race Walk
3. Projects for preparing training and coaching plans for different level athletes for different periods of training in the events

RECOMMENDED BOOKS

1. Geoffrey H.G.Dyson, The Mechanics of Athletics Hodder and Stoughton London Sydney Auckland Toronto 1977.
2. Ken Doherty, Track and Field Omnibook Tafnews Press, PO Box 296 Los Allos 940 CA 22 USA
3. F.Wilt and T.Eeker : International Track Coaching Encyclopaedia Parker Publishing West Myack, N.York.1970.
4. Howard Payne : Athletes in Action Palham B.Bedford Square London WBCIB 3 DU 1985.
5. Jess Jarver : Middle Distances-Tafnews Press
6. F.Wilt & T.Ecker : International Track & Field Coaching Encyclopaedia-Parker Publishing Company Inc.West Nyack, N.York 1970.
7. Track & Field Quarterly Review (Vol.82, No.2, summer 1983) Track and Field Association, USA, 10920 Ambassdor Drive Suite 302, Kensas City, Missouri 64153.
8. Track and Field Quarterly Review Vol. 81 No.2, summer 1981, USA.
9. Wilbur L.Ross. The Hurdle Bible, Santana Printing Company 3rd Edition 1978. 10. Wilt Fred : The Throws 1974, 1980 (Tafnew Press California)

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-B- BASKETBALL)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Coaching philosophy, its importance in the profession of basketball coaches and modern trends in philosophical concepts on various aspects of basketball game.
 - Philosophical concepts in
 - a) Coaching profession in general
 - b) Defensive basketball
 - c) Offensive basketball
 - d) Preparation of players

2. Principles and methods for the development of general and specific physical (conditional) abilities :
 - a) Development of strength, speed, explosive power, speed endurance, endurance, flexibility and coordinative abilities
 - b) Training means for the development of all the physical (motor/conditional abilities

SECTION-B

1. Analysis of team tactics in offense in Basketball.
2. Principles and methods of teaching and training of offensive team tactics:
 - a) 1-4 Offense
 - b) Flex Offense
 - c) Passing game/motion offense
 - d) Offense against presses (Man-to-man & Zone)
 - e) Out of bounds play & free lane offense
3. Analysis of team tactics in defense in Basketball
4. Principles and methods of teaching and training of defensive team tactics:
 - a) Match-up zone
 - b) Flex defense
 - c) Full Court, $\frac{3}{4}$ court press (Man-to-Man and Zone)

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-B: BASKETBALL)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching, training and coaching of modern team tactics in offense and defense and building-up of team tactics in systematized way.
2. Attach with the university team as shadow coach. Observe and analysis of developing team for competition. Make strategy according to the staff team.
3. Projects on planning of training programmes for various periods and various levels of teams
4. Projects on planning of training units for team and individual players for different cycles
5. Officiating/practice teaching programme

RECOMMENDED BOOKS

1. Basketball Multiple offense and defense by D.C.Smith and R.B.Sear, New York, 1982.
2. Practical modern Basketball by J.R.Wooden, New York,1980.
3. Progressions for teaching Basketball by Mel Helkinson.

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M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-C- FOOTBALL)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

- Total football : - Concept of total football
- Need of total football
- Requirement of total football
- Qualities a player should possess for total football
- Total football & physical fitness
- Goal keeping and angling : Narrowing the angle
- Training of Goal Keeper – Defensive and Offensive
- Soccer exercise for scientific improvement
- Importance and role technical exercises

- Importance and role of tactical exercises
- Importance and role of technical and tactical soccer exercises in building up specific demand of the game
- Match Analysis – Importance and methods of analysis:
- Importance of match analysis
- Selection and Scouting
- Aims of match analysis
- Methods of Match analysis: Free Method, written observation method, Film & tape recording method
- Modern chart

SECTION-B

- Team Building
- Role of peripheric sight and natural reflex in speeding up the game
- Psychological preparation of Football player for training & competition:
- Methodical approach in psychological preparation
- Recognition, feeling & will power components of physical phenomenon and their impact on the performance of players & performance of teams.
- Development of will power
- Soccer exercises help in gaining confidence
- Most common injuries in football game & their preventive measures.

Planning and checking of training :

- The programme : Preparation of programme, structural composition of programme.
- The training Plan:
- Annual training Plan : Periodization of annual plan, aims & objective and task of each period.
- Weekly training plan aims and objectives - Monthly training plan aims and objectives -

Session Design:

Designing a session keeping in view

- Space (availability and utility)
- Time (availability and utilization)
- Intensity of the content/ session • Availability of the number of players
- Availability of Training equipment.
- Age-specific Considerations

- **Mentality/Mental training/mental preparations:**
 - Handling Stress / Stress management
 - Mental toughness
 - Emotional Control
 - Psychological barriers
 - Decision making
- **Requirement and different system of requirements:**
 - a) Education and moral demands
 - b) Professional requirements :
 - i) Technical requirements
 - ii) Tactical requirements
 - iii) Requirements associated with physical abilities.
- Setting the requirements and fulfilling them.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-C: FOOTBALL)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Teaching, training and coaching tactics
 - Offensive tactics (individual and group)
 - Offensive tactics during re-starts
2. Match analysis : Method and means
3. Teaching, training and coaching in age group training
4. Tests and measurement for ball skill
5. Teaching practice

SUGGESTED READINGS

1. Heddergott, K.H. New Football Manual, Limpert Verlag, Humberg, 1976.
2. Palli Janos, Modern Football training, draft reproduction, Leipzig, 1968.
3. Wade allen. The F.A.Guid to training and coaching, London, 1976.
4. Batty Fric, Coaching Modern soccer attack, Faber and Faber, London, 1980.
5. Glanvile, Brain, The History of World Cups, Times Newspaper Ltd.
6. Huges Charles, Soccer Tactics and skills, British Broadcasting Cooperation, London, 1980.
7. Widdows, Richard, The Soccer Book, Octopus Books Ltd., London, 1981.
8. Widdows, Richard, Soccer Technique and Tactics, The Hamlyn Publishing Ltd.,London, 1982.

9. Bellg, A Tactical soccer for players and Coaches “The Team A.S. Barnes and Company, New Jersey, 1978.
10. The FIFA/COCA-COLA International Academy Part-II, Team : Preparation related to competition football. The FIFA/COCA-COLA World Football Youth Academy. The Football Association’s Referee’s Chart and Player’s Guide to the Laws of the Association Football 199091, Pan Books, London and Sydney.
11. Relly T.Clarys J. and Stibble A., Science of Football I & II Vol.1993.
12. Latest FIFA Magazines.
13. FIFA world Cup Report 2002.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-D- GYMNASTICS)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Children and Women's training in Gymnastics :
Aims and objectives, Principles and procedures
2. Basic principles of refining Gymnastics elements and movements for high level of performance.
3. Structure of Gymnastics movements:
Different phases, Aims, objectives and relations
4. Biomechanical analysis of flight elements and dismounts

SECTION-B

1. Specific training programmes to develop Hand push off abilities
2. Specific programmes to develop take off abilities
3. Training methodics to develop landing qualities in Gymnastics.
4. The role of the coach:
 - a) During training
 - b) During competitions
 - c) While accompanying the teams (inland & abroad)
5. Psychological preparation of Gymnasts :
 - a) Pre-competitions
 - b) During competitions

SUGGESTED READINGS

1. Code of Points Men by FIG Switzerland, 2009 Edition.
2. Code of Points Women by FIG Switzerland, 2009 Edition.
3. Code of Points Rhythmic Gymnastics by FIG Switzerland, 2009 Edition.
4. Technical reglements by FIG Switzerland, 2009 Edition.
5. Fundamentals of Men's friends Gymnastics by Dr.G.S.Bawa, Friends Publication, 1991.
6. Women and Sports Performance by Dr.Kalpana Debnath, Friends Publication, 1991. 8.
Coper Phyllis, Trnka Milan Teaching Gymnastic skills to men and women,
New Delhi, Surjit Publications, 1982.
9. Men's Gymnastics by Fukushima & Wrio Russel. Faber and Faber London, 1980.
10. Men's Gymnastics coaching manual by Readhead Liovd. Springfield's book Ltd., 1987.
11. Biomechanics of Sports Techniques by James G.Hay 12. Symbol language by FIG,
Switzerland, 2009 edition.
13. Training Manual Gymnast by Dr.G.S.Bawa, NIS Publication

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

**PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-D:
GYMNASTICS) Paper Code: SPCM2402P**

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Developing presentation ability of new techniques
2. Teaching and training of advance skills in all apparatuses
3. Planning of training motor abilities (general and specific) & preparation of one year training programme
4. Construction and evaluation of different motor abilities test of specific motor abilities.
5. Construction and evaluation of skill tests
6. Officiating
7. Observation analysis and registration of performance :
a) in training b) in competition
8. Self development programme

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-E- HOCKEY)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

- 1) Principles of play
 - a) Ball starts (BS0-BS5)
 - b) With ball principles
- 2) ball win (Ball win 0- ball win 4)
- 3) types of playing formation and strategies
- 4) without ball principles variations 0- press (full press, half press, 75 press etc) Planning and evaluation of training
 - Short and long terms plans
 - Training schedules and programmes

SECTION B

- i) Competitions in hockey
 - Preparation during build up competitions
 - Planning during main competitions
- ii) Management of teams during competitions
 - Travel arrangement
 - Board and lodging arrangements
 - Liaison with organisers
 - Coordination with in the team and the officials
 - Briefing to the media

TRAINING IMPLICATION

- i) Methods and means of identifying faults and correction of faults in performance
- ii) Teaching and training aids in hockey
 - Importance
 - Types
 - Modern trends
 - Methodical application

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-E: HOCKEY)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Warming up – general and specific
2. Organisation of tests for evaluation of skills level
3. Teaching and training of group tactics
4. Teaching and training of systems of play
5. Team training.

SUGGESTED READINGS

1. Horst Wein, The Advanced Science of Hockey, Pelham Book, London 1981
2. Singh G., Hockey preparing for the future, Safderjung Enclave, N.Delhi, 1997.
3. Cadman John, Games for Hockey Training, Pelham Books London, 1981.
4. Taylor Ian, Behind the Mask, Macdonald Queen, Anne Press, London, 1989.
5. Singh, H., Science of Sports Training, DVS Publication, N.Delhi, 1991.
6. Whitaker, David, Coaching Hockey, The Crowood Press, 199

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M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-F- SWIMMING)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

1. Periodization of training years
 - a) Single periodization
 - b) Double periodization
 - c) Multiple periodization
2. Planning of training in Swimming:
 - a) Single yearly plan
 - b) Olympic (4 years) Plan
 - c) Multiple (Long term) years plan

3. Training Methods used in Swimming Training:
- a) Continuous (Over distance)
 - b) Fart Lek
 - c) Interval
 - d) Repetition
 - c) Sprint
 - d) Hypoxic Training

SECTION B

1. Training sets for Swimming Training.
- a) Straight sets
 - b) Paramids
 - c) Out slow Back Hard
 - d) Progressive
 - c) Regressive
 - d) Alternate slow and fast
 - e) Decreasing distance
 - f) Broken
 - g) Simulators
 - h) Mixed
2. Preparation of Swimming Training Schedule:
- a) Factors to be kept in mind
 - b) Factors for Basic Training
 - c) Factors for advance Training
 - d) Specific training for individual events;
 - i) Distance events
 - ii) Middle distance events
 - iii) Sprint events
 - iv) Individual Medlay even

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-F: SWIMMING)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Methods and means of carrying out general and specific competition warm up.
2. Preparing and imparting the water training workouts.
3. Preparing and imparting the land training workouts.
4. Officiating and organization of Swimming competition.
5. Analysis of Competition performance.

RECOMMENDED BOOKS

1. Counsilman, J.E.: "The Science of Swimming" Pelham Books Ltd., Bedford Square, London, 1977.
2. Counsilman, J.E.: "Doc Counsilman on Swimming". Pelham Books Ltd., Bedford Square, London, 1981.
3. Counsilman, J.E.: "Competition Swimming Manual for Swimmers and Coaches". Pelham Books Ltd., Bedford Square, London, 1982.
4. The New Science of Swimming: Counsilman J.E, Counsilman Brian E.
5. David; G.T.: "Swimming Steps to success". Leisure Press, Champaign Illcons, 1978.
6. Hogg. J.M: "Land conditioning for Swimmers" E.B. Publishing Co., Great Britain, 1969.
7. Maglicho, E.W: "Swimming Faster". Malyfield Publishing Company, Palo Alto, California, 1982.
8. Maglicho, E.W: "Swimming Even Faster". Magfield Publishing Company, Palo Alto, California, 1990.

9. Singh,H: “Sports Training: General Theory and Methods”.NIS Publication, Patiala,1984.
10. Singh,H: “Science of Sports Training” D.V.S.Publication, New Delhi,1991.
11. FINA Hand book: “Constitution and Rules: Swimming, Open Water Swimming, Diving,Water Polo, Synchronized Swimming, Masters, Facilities, Medical and Doping” FINA Hand Book,2009, S.F.I.India,.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER –II- SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION- A

1. Diagnostic methods of assessment through tests and prediction of performance (techniques, tactics, physical abilities, physiques, social abilities and psychological).
2. Developments of methods and procedure to measure and evaluation of techniques.
3. Preparation of scouting report and its execution.
4. Consideration for the development of new drills for various skills
5. Playing tactics and strategies:
 - a. Switching and penetration

- b. Variation in tempo.
- c. Choice of side or serve
- d. Utilization of substitutes.
- e. Utilization of interruptions.
- f. Utilization of libero player.
- g. Game planning and coaching
- h. Net practice before match
- i. Signals and code words.

SECTION-B

1. Injuries in volleyball:
 - a. Causes of injuries
 - b. Common injuries in volleyball
 - c. First aid
 - d. Preventive measures.
2. Nutrition in volleyball with regards to:
 - a. Training (male, female, beginners, youth, senior and high performance).
 - b. Competition(prior to the competition, during and after competition)
 - c. Special cases (weight loss, weight gaining, during height spurt and for hypertrophy).
3. Trainings:
 - a. Pressure training
 - b. Complex 1 and 2 training
 - c. Functional training
 - d. Situational training
 - e. Will training
 - f. Concentration training
 - g. Training to improve reaction

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-G- VOLLEYBALL)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Specific Training:
 - a) Will Training
 - b) Concentration Training
 - c) Situational Training
 - d) Complex Training
 - e) Pressure Training
 1. Team training in Complex I and Complex II
 2. Assignments: Consulting Library and writing, updating the specific topics, handling of teams during competition, collection and formulation of data.
 3. Statistical preparation of playing actions, served, attacking and blocking.
 4. Preparations of play fields, preparations and sketching of training aids.
 5. Analysis of Video films, figures, news and internet surfing.

SUGGESTED READINGS

1. K. Nicholls, Modern volleyball, Henery Kimption Publisher, London, 1973-78.
2. Fraser, strategies for competitive volleyball, Human kinetics Publisher Illinois 1980.
3. Volleyball technical journals, Canadian volleyball association 333, River Rd, Venier Ontario, kill 889.

4. Level 3 coaches manual, 1979.
6. Gurbakash S. Sandhu, volleyball basic and advanced, the sports people publishers of sport literature 3321, sector 15D, Chandigarh.
7. Dr V Hurbert dhanraj, volleyball a modern approach, SAI, NS, NIS, Patiala india 1991.
8. International coaches manual, federation international de volleyball, avenue, de la gare-12CN- 1001,1989/90.
9. Level 1 coach manual, Canadian volleyball association, 333 river road, Venier, Ontario Canada, kil 889-1983.
10. Level 2 coaches manual 1983

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M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-H- WEIGHTLIFTING)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION-A

1. Anthropometric pre-requisites for elite performance in Weightlifting
2. Physiological pre-requisites for elite performance weightlifting
3. Physical pre-requisites for weightlifting
4. Psychological pre-requisites for weightlifting
5. Sociological pre-requisites for elite performance in weightlifting
6. Prospective (multi-year) training
7. Dynamics of the Volume and intensity
8. The dynamics of the result and the athlete's body weight
9. Sequential in the use of exercises
10. Distribution of Volume and intensity

- 11 Distribution of lifts by zones of intensity in the fundamental exercises in the preparatory and the competition period.

SECTION-B

1. Most frequent technical cross among elite weightlifters
 - a) Rigid interaction of the links of the kinematic chain
 - b) Maximal amplitude of the movement
 - c) Extension (optimal) of different segments of the body
 - d) Length of different phases of the classical lifts
2. Methods of analyzing the technique
3. Apparatus used for analyzing the technique
4. Computer application in analyzing the technique and the uses of different software's
5. Different nutritional supplements and its effect on weightlifting training
6. Bio-chemical changes due to high intensity training in weightlifting
7. Permitted ergogenic aids and its influence on weightlifting performance
8. Effect of weightlifting training
 - a) Physiological and physical changes among women
 - b) Impact of weightlifting training on youth weightlifters
 - c) Impact of weightlifting training : findings

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-H-WEIGHTLIFTING)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Analysis of Video on CD-Rom of major international competition including Olympics
2. Projects : Preparation of performance charts, graphs etc.
3. Preparation of training programme for different level weightlifters for different periods of training.
4. Organization of tests during major competition
5. Planning and conducting recreational Games.

SUGGESTED READINGS:

1. Exercise and Sports Science reviews : American College of Sports and Medicine Series. Williams and Wilevis, Vol 24, 1996.
2. Designing Resistance training programme. Jack S.Jaw Kraemer W.J.Human Kinetics, 1987.
3. Hormonal and metablic adaptation to exercise. George Thieme, Verlag, New York,1983.
4. Harmonal mechanisms related to the expression of muscular strength and power.Kraemer W.J.Blackwell Publications, 1993.

PUNJABI UNIVERSITY, PATIALA

M.SC. SPORTS COACHING

COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

THEORY PAPER – II- SPORTS SPECIALIZATION (OPTION-I- WRESTLING)

PAPER CODE: SPCM2402T

External Marks: 70

Internal Marks: 30

Total Marks: 100

Exam. Time: 03 Hours

Teaching Hours: 60

Credit: 04

Min. Pass Marks: 40%

Instructions for Paper Setter

The question paper will consist of three sections i.e. A, B, and C. Section A and B will have three questions each from respective sections of syllabus and will carry 12(12x4=48) marks each. Out of which students have to attempt two questions each from section A and B. Section C will consist of 11 short answer type questions of 2 marks each. This section will cover the entire syllabus uniformly and will carry 22 marks in all.

Instructions for the Candidates

Candidates are required to attempt two questions each from sections A and B. Section C is a compulsory consist of 11 short answer type questions of 2 marks each.

SECTION A

Fatigue:

- i) Overloading and Staleness
- ii) Recovery – its importance in sports

Selection Criteria and norms :

- i) Wrestlers
- ii) Coaches
- iii) Selection Committee

iv) Associations and federations

Applied Psychology :

- i) General characteristics of Psychological preparations – orientation and motivation
- ii) Regulating the psychological state : Pre-start state iii) Success and failures – Effects and handling

SECTION B

- i) Child behavior in comparison with adults
 - during training
 - during competition
 - after competition

Strategy by a Coach from Psychological angle

- Preparing for a bout : Coach – Wrestler – Training relation

Tests and Measurements :

- i) During training
- ii) During competition - Control

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COURSE CODE: SPCM2PUP

PART – II SEMESTER – IV

PRACTICAL PAPER – II - SPORTS SPECIALIZATION (OPTION-I: WRESTLING)

Paper Code: SPCM2402P

External Marks: 35

Internal Marks: 15

Total Marks: 50

Exam. Time: 02 Hours

Teaching Hours: 20

Credit: 02

Min. Pass Marks: 40%

1. Combinational aspect of techniques in competitive Wrestling
2. Tactical aspects of Wrestling in relation to higher competition
3. Organization and administrative aspect of national level Camps
4. Practical aspect of Weight control during National Camps and off season.
5. Practical aspect of officiating during National trials and National level competitions.

SUGGESTED READINGS

1. Free Style and Greco-Roman Wrestling, R.Pitrov, FILA, 1986.
2. Teaching and Coaching Wrestling, Dr.David Camaione and Dr.K.Tillman
3. Olympic Solidarity Course, M.Dusson, FILA ,Paris, 1985.
4. Wrestling is a man's game by Sergei Preobra Zhenski, Mascow, 1981.
5. Introduction to Sports Biology, Dr.J.Reh, DHFK, GDR, 1972.
6. Olympic solidarity course, lectures by Dimitri Mindiaschvilli, USSR
7. Olympic solidarity course, FILA, 1985, Martinetti 8. DHF K Journal 1/87.
9. FILA Coaches Science Seminar 1993 Yamagata - Japan
10. Coaching Wrestling Successfully – Gabledan 1999.

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PART – II SEMESTER – IV

PAPER-III:

SPCM2403T

DISSERTATION

Max. Marks: 100 (70 External+30 Internal)