

**Scheme of Examination for B.Sc (Physical Education, Health Education and Sports).-  
Six Semester Course.**

Ist. Semester:		Marks	Int. Assessment	Total
Paper-I	English (Compulsory)	60	15	75
Paper- II	Hindi (Compulsory)	60	15	75
Paper- I II	Foundation of Phy. Education and Sports	80	20	100
Paper-IV	Anatomy and Physiology	60	15	75
Paper- V	Theory of games and sports-I (Athletics and Gymnastics)	60	15	75
Paper-VI	Theory of games of sports-II (Volleyball Game and Yoga)	60	15	75

**Total Marks: 475**

IInd. Semester:		Marks	Int. Assessment	Total
Paper-I	English (Compulsory)	60	15	75
Paper-II	Hindi (Compulsory )	60	15	75
Paper-IV	Foundation of Phy. Education and Sports	80	20	100
Paper-IV	Anatomy and Physiology (Theory) <b>(Practical)</b>	60	15	75
Paper-V	Theory of games and sports-I (Track & Field and Gymnastics) <b>Practical (Track &amp; Field, Gymnastic)</b>	60	15	75
Paper-VI	Theory of games of sports-II (Volleyball Game and Yoga) <b>Practical (Volleyball and Game and Yoga)</b>	60	15	75

**Total Marks: 625**

**Grant Total: 1100**

B.Sc (Physical Education, Health Education and Sports) (Six semester course)

SEMESTER-I  
**Paper-I**  
**English (Compulsory)**

**Theory- 60 Marks**  
**Int. Assessment: 15**  
**Time: Three hours**

**Note: The paper will set the question paper as per the syllabus and according the standard of the course.**

A Book of English for Polytechnics

By Mrs. Anju (M.A..M.Phil)  
Lect. Govt. Polytechnic, Ambala City  
(Ishan Publiscation),  
2765./2, Patel Road, Ambala City.  
Ph. 0171-244997

Following six chapters from the above book.

**(15 Marks)**

1. Adventure in Space
2. An Engineering Wizard
3. The Diamond Necklace
4. Gold lives in the Punch
5. The man who found penicillin
6. Guru Nanak Dev

(One general question with internal choice)

2. Comprehension – from the text book.

**(15 Marks)**

3. Grammer

**(15 Marks)**

- a) Voice
- b) Nattation
- c) Tenses
- d) Prepositions
- e) Punctuation

4. Translation from English to Hindi

**(08 Marks)**

5. Paragraph on Topic/ themes related to games and sports. **(07 Marks)**

## SYLLABUS

### B.Sc. (Physical Education, Health Education and Sports) - I

#### Paper – II Hindi (Compulsory)

Time 3 hours

Theory 60

Int. Assessment 15

Note: The paper setter will set the question paper as per syllabus and according the standard of the course.

#### SEMESTER – I

1. 'पृथ्वीराज की आँखें' एकांकी ..... 25 अंक  
(डॉ० रामकुमार वर्मा)

प्रस्तुत एकांकी में से दो गद्यांश दिए जाएँगे, जिनमें से एक की सप्रसंग व्याख्या लिखनी होगी। इसके लिए 15 अंक निर्धारित हैं।

इसी एकांकी में से चरित्र-चित्रण, उद्देश्य, तात्विक समीक्षा आदि पर पूछे गए दो प्रश्नों में से एक का उत्तर देना होगा जो 10 अंक का होगा।

2. वाक्यांश के लिए एक शब्द 10 अंक  
;दिए गए वाक्यों/वाक्यांशों में से किन्हीं दस के लिए एक-एक शब्द लिखना होगा।  
प्रत्येक के लिए एक अंक निर्धारित है।
3. पर्यायवाची शब्द 05 अंक
4. वाक्य - शोधन 05 अंक  
(पर्यायवाची शब्द एवं वाक्य- शोधन के प्रश्न बहुविकल्पी होंगे। दिए गए चार-चार विकल्पों में से सही विकल्प का चयन कर परीक्षार्थी को अपनी उत्तर पुस्तिका में लिखना होगा। प्रत्येक भाग के लिए एक अंक निर्धारित है)
5. निबंध लेखन 15 अंक  
(राजनीतिक, सामाजिक, सांस्कृतिक, सम-सामयिक आदि विषयों पर दिए गए पांच निबंधों में से एक का उत्तर देना होगा।)

**B.Sc. (Physical Education, Health Education and Sports)**  
**(Semester-I)**  
**Paper – III          Foundation of Physical Education and Sports**

**Time: Three hours**

**Marks:                80**  
**Int. Assessment : 20**

Note: The question paper will consist of five Unit I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 15 marks each. Unit ‘Vth’ will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit ‘V<sup>th</sup>.’ is compulsory for all.

Unit – 1

Meaning, Importance of Physical Education  
Need of Physical Education  
Scope of Physical Education and Sports  
Relation of Physical Education to General Education and Recreation.

Unit - II

Aim and Objectives of Physical Education and Sports  
Physical, Mental, Social, Emotional Developments,  
Neuro Muscular Co-ordination,  
Development of Good Citizenship,  
Worthy Use of Leisure time.

Unit – III

A Brief Historical Review of Physical Education and Sports Activities of Indian Heritage, History of Asian and Modern Olympic Games, History of Phy.Edu. of Greece.

**UNIT – IV**

National Programme of Physical Education and Sports  
National Institutes of Physical Education & Sports  
Sports Talent Search Scholarship

**References**

1. Khan, E.A, History of Phy.Edu;Patna Scientific Corporation (1964).
2. Kamlesh, M.L.Physical Education Facts and Foundation; Faridabad P.S publication(pvt) Ltd.(1988).
3. Kamlesh, M.L.Principles& History of Phy.Edu., Prakash Bros., Patiala,1991.
4. Hoffman,G.J.&Harris J.C Introduction to Knesiology studying Phy.Activity,2000.
5. Revenas, R.S.(1978) Foundations of Physical Education.
6. Barrow, R.M.(1983) Man and Movement.
7. Bucher, G.A(1922)Foundation of Phy.Edu.and Sports.

**(Semester-I)**  
**Paper – IV Anatomy & Physiology**

Time: Three hours

**Marks: 60**  
**Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'Vth' will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V<sup>th</sup>.' is compulsory for all.

Unit – 1

Concept of Anatomy & Physiology and their implications.  
Description of Cell, tissue, Structure and functions of the Cell  
Properties of living Cell.

Unit - II

Structure and Functions of Skelton System

**Bones-** composition, Classification and Function of Bones

Features of Different Bones of the Body i.e. Scapula, Radius, Ulna, Humorous, Hip Bone, Femur, Tibia, Ribs and Bones of the Skull.

**Joints** – Definition and Classification of Joints, Structure of a Synovial Joints.

Unit – III

Planes & Axis of Movements and Terminology of Movement around the Joints.

Respiratory System .

Structure of Lungs.

Mechanism of Respiration.

Second wind and Oxygen Debt.

Unit - IV

**i) Cardiovascular System :**

Structure of Heart and Major Blood Vessels in different Part of the Body.

Process of blood circulation in the body.

**ii) Excretory System :**

Structure of Kidney and Urinary Tract. Various Channels of Excretion such as Kidney, Skin and Rectum.

**Reference Books.**

1. Pearee Evelyn, C

Anatomy and Physiology for Nurses, London,  
Faber and Faber Ltd.,1962

2. Pavat.J Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Co., 1959.
3. Willion. J.F Anatomy and Physiology, London, W.B.Saunders.
4. Senson Wright Applied Physiology
5. Best and Taylor The Living Body, New Delhi, Asia Club House,1960.
6. Smount, C.F.V.and McDonald, R.J.S Physiotherapy, Occupational, Therapy and Gymnastics, Edward Arnold Pvt.Ltd., 1969.
7. Kiober Grey Anatomy and Physiology.
8. Stackpoles Anatomy and Physiology (6<sup>th</sup> ed.).

**B.Sc. ( Physical Education, Health Education and Sports)**  
**(Semester-I)**  
**Paper – V Theory of Games & Sports -I**  
**(Athletics and Gymnastics)**

Time: Three hours

**Marks: 60**  
**Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit ‘Vth’ will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit ‘V<sup>th</sup>.’ is compulsory for all.

Unit - I

**Sprints:-**

- a) Correct Running Style Emphasis on Proper Body Position
- b) Crouch Start – Fixing of Starting Blocks, Getting off the Block
- c) Practice of Starts with Blocks using Proper Command
- d) Curve Running
- e) Walking

Unit - II

High Jump:-

- a) Approach run
- b) Take Off
- c) Flying Phase (Stadel Technique & Fosbury Flop)

Note : Fosbury Flop is only Taught if Proper Facility available.

Unit - III

History of Gymnastics in India, Asia and World

The measurements and the layout of various apparatuses of Gymnastics

Unit - IV

For Boys

**1. Floor Exercises**

- a) Forward Roll
- b) Backward Roll
- c) Handstand Roll Forward

For Girls

**1. Floor Exercises**

- a) Roll Forward
- b) Roll Backward
- c) Handstand Roll Forward

- d) Cart Wheel
- e) Roll Backward to Handstand
- f) Front Split
- g) Scale Balance

- d) Cart Wheel
- e) Cat Leap Jump
- f) Handstand Forward

**2. Parallel Bar**

- a) Upper Arm Sport
- b) Back Uprise From Upper Arm
- c) Perfect Swing on Parallel Bar
- d) Sitting Position Straddle
- e) Shoulder Stand
- f) Front Wall Dismount

**2. Balancing Beam**

- a) Jump to Squat Stand
- b) Knee Scale with support
- c) Walking on the Beam
- d) Standing Scale front ways
- e) Cat Leap

**3. Horizontal Bar**

- a) Perfect Swing on Horizontal Bar
- b) Single Leg upstart (with swing)
- c) Single leg Circle Forward
- d) Single Leg Circle Backward
- e) Under Swing Dismount

**REFERENCES:**

1. Chauhan, B.S., Khel Jagat Mein Athletics, Jalandhar: A.P.Pub., 1999.
2. Fox, E.L., Physiological Basis of Physical Education and Athletics, Brown Pub., 1989.
3. Gothi, Ekta, Teaching and Coaching Athletics, ND: Sports Pub. 1997.
4. Anand, Om Parkash., Yoga Dawara Kaya Kalp, Kanpur, Sewasth Sahitya Perkashan, 2001.
5. Code of Points Trampoline Gymnastics, Federation Int. De Gymnasics, 2005.
6. Federation International Gymnastics, Federtion Int. De Gymnasics, 2006.
7. Jain, R., Play and Learn Gymnastics, Khel Sahitaya Kendra, 2005.
8. Pearson, D., Play The Game Gymnastics, Britain : Ward Lock, 1991.



(Semester-I)

**Theory of Games & Sports - II**

**Paper-VI (Volleyball Games and Yoga)**

Time: Three hours

**Marks: 60**

**Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, Unit I,II,III,& IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'Vth' will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V<sup>th</sup>.' is compulsory for all.

**SEMESTER – I**

Unit - I

1. History of Volleyball in India & Asia
2. Court – Dimensions, Officials of Volleyball
3. Warming up – General & Specific

Unit - II

1. **Techniques :-**
  - a) Service – Under Arm, Side Arm, Overhead & Floating
  - b) Pass – The Volley, The dig
  - c) Player's Stance – Receiving the ball and Passing the Teamates

Unit - III

1. Meaning Definition of Yoga, Types of Yoga
2. Pranayama & Its techniques
3. **Asanas** – Meaning and Types of Asanas

Unit - IV

4. Importance of Yoga in Daily Life
5. Techniques & benefits of following Asanas :-
  - a) Padmasana
  - b) Vajrasana
  - c) Halasana
  - d) Vakrasana
  - e) Sarvangasana
  - f) Vipritkarani
  - g) Bhujangasana
  - h) Surya Namaskar

**REFERENCES**

1. Anand, Om Prakash. Yog Dawra Kay Kalo, Kanpur, Sewasth Sahitya Perkashan,2001.
2. Sarin, N.Yoga Dawara Ragoon Ka Upchhar, Khel ahitya Kendra,2003.
3. Sri., Swami Rama, Breathing, Rishikesh, Sadhana Mandir Trust,2001.
4. Swami, Ram.,Yoga & Married life, Rishikesh Sadhana Mandir Trust,2000.

5. Swami, Veda Bharti., Yoga Polity, Economy and family, Rishikesh Sadhana Mandir Trust,2000.
6. American Program, Coaching Youth Volly Ball, Campaign, H.K.,1996
7. FIVB, Backcourt Spiking in Modern Volly Ball, Chennai: FIVB,1996.
8. Saggar,S.K., Cosco Skill Stactics-Volley Ball, Delhi: Sports Publication,1994.
9. Scates,A.E.,Winning Volley Ball, WC Brown, 1993.

SEMESTER-II

B.Sc (Physical Education, Health Education and Sports) (Six semester course)

**Paper-I**  
**English (Compulsory)**

**Time: Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

Note : The paper will set the question paper as per the syllabus and according the standard of the course.

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2765./2, Patel Road, Ambala City.  
Ph. 0171-244997

Following six chapters from the above book.

1. Uncle Podger Hangs a Picture
2. Subhash Chander Bose
3. A pair of Mustachias
4. Guru Gobind Singh
5. With Photographer
6. Sir Jagdish Chander Bose

One general question with internal choice	<b>(15 Marks)</b>
2. Comprehension	<b>(10 Marks)</b>
3. Letter Writing (Business)	<b>(15 Marks)</b>
4. Idioms and Phrases / Autonyms/ Snony	<b>(10 Marks)</b>
5. Translation from Hindi to English	<b>(10 Marks)</b>

**Paper – II**  
**Hindi (Compulsory)**  
**B.Sc. (Physical Education, Health Education and Sports) - I**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

Note: The paper setter will set the question paper as per syllabus and according to the standard of the course.

**SEMESTER – II**

1- कहानी : ;पद्म कफन ;प्रेमचंदद्व ;पद्म बूढ़ी काकी ;प्रेमचंदद्व 25 अंक  
प्रस्तुत कहानियों में से दो गद्यांश दिए जाएँगे, जिनमें से एक की सप्रसंग व्याख्या लिखनी  
होगी। इसके लिए 10 अंक निर्धारित हैं

इन्हीं कहानियों में से चरित्र चित्रण, उद्देश्य, तात्त्विक समीक्षा, कथ्य, समस्याओं आदि पर पूछे गए  
दो समीक्षात्मक प्रश्नों में से एक का उत्तर देना होगा, जो 10 अंक का होगा।

2. खेल सम्बंधी पारिभाषिक शब्दावली 10 अंक  
पूर्व पाठ्यक्रम में दिए गए 150 के लगभग शब्द निर्धारित हैं, जिनमें से 15 शब्द ;अंग्रेजी के  
दिए जाएँगे। इनमें से किन्हीं दस के हिन्दी पर्याय लिखने होंगे। प्रत्येक के लिए एक अंक  
निर्धारित है।

3. मुहावरे 5 अंक

4. लोकोक्तियाँ 5 अंक

5. विपरीतार्थक ;विलोमद्व शब्द 5 अंक

6. शब्द-शोधन 5 अंक

;विपरीतार्थक शब्द एवं शब्द-शोधन के प्रश्न बहुविकल्पी होंगे। प्रत्येक के लिए चार-चार विकल्प दिए  
जायेंगे। सही विकल्प का चयन कर परीक्षार्थी को अपनी उत्तर-पुस्तिका में लिखना होगा।  
प्रत्येक के लिए एक अंक निर्धारित है।

7. पत्र-लेखन ;शिकायती एवं सम्पादक के नामद्व 10 अंक  
दिए गए दो पत्रों में से एक का उत्तर अपेक्षित होगा।

(Semester-II)

**Paper – III      Foundation of Physical Education and Sports**

**Time: Three hours**

**Theory Marks: 80**

**Int. Assessment : 20**

Note: The question paper will consist of five Units I, II, III, IV, & V, Unit I, II, III, & IV will have two questions from their respective units of the syllabus and will carry 15 marks each. Unit 'Vth' will consist of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I, II, III, & IV and Unit 'Vth.' is compulsory for all.

**Unit – 1**

Scientific basis of Physical Education and Sports,

Contribution of Allied Sciences – Anatomy, Physiology, Kinesiology, Psychology, Sociology, Biomechanics & Anthropometry

Unit – II

N.C.C., N.S.S., N.S.U.,

Scouting & Guiding,

Youth Hostels,

Youth Festivals

Nehru Yuva Kendras

Unit – III

Coaching Schemes,

Rural Sports,

Women Sports

National Fitness Programme

National Awards & Honours to Outstanding Sportspersons and Coaches

Unit – IV

Olympic Movement and its Impact on Physical Education and Sports

The contribution of Olympic Movement towards International Understanding

**REFERENCES**

1. Khan, E.A, History of Phy.Edu; Patna Scientific Corporation (1964).
2. Kamlesh, M.L.Physical Education Facts and Foundations; Faridabad P.S.publication (pvt) Ltd. (1988).
3. Kamlesh, M.L.Principles & History of Phy.Edu., Prakash Bros., Patiala,1991.
4. Hoffman, G.J & Harris J.C Introduction to Knesiology studying Phy. Activity,2000.
5. Revenas, R.S (1978) Foundations of Physical Education.
6. Barrow, R.M.(1983) Man and Moment.
7. Bucher, G.A.(1992) Foundations of Phy.Edu. And Sports.

(Semester-II)

**Paper – IV Anatomy & Physiology (Theory)**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'Vth' will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V<sup>th</sup>.' is compulsory for all.

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Unit – 1

Muscular System:-

Structural & Functional Classification of Muscles  
Significance & Characteristics of Muscles  
Relation of Muscle & Bone Coverage

Unit – II

***Digestive System :-***

Structure & Function of Various Parts.  
Movement of Gastro Intestinal Tract.  
Secretion and Functions of Digestive Juices.  
Function of Liver and Absorption of Food.

Unit – III

Nervous System :-

- a) Structure of Brain and Spinal Cord
- b) Function of Important Parts of Nervous System (Spinal Cord, Cerebrum, Cerebellum, Medulla Oblongata)

Autonomic Nervous System  
Central Nervous System

Unit – IV

Structure of Eye Organs for Vision.  
Structure and Function of Skin.  
Structure and Function of Ear

**SEMESTER – II**

1. Heart Sound & Measurement of blood pressure.
2. Determination of Blood Groups
3. Breathe Sound
4. Determination of Vital Capacity
5. Breathe Holding Time
6. Dissection of Goat's Heart
7. Estimation of Haemoglobin
8. Body Temperature
9. Normal Pulse Rate
10. Movement Time

**Reference Books.**

1. Pearee Evelyn, C                                  Anatomy and Physiology for Nurses, London, Faber and Faber Ltd.,1962
2. Pavat.J    Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Co., 1959.
3. Willion. J.F     Anatomy and Physiology, London, W.B.Saunders.
4. Senson Wright                                      Applied Physiology
5. Best and Taylor                                    The Living Body, New Delhi, Asia Club House,1960.
6. Smount, C.F.V.and McDonald, R.J.S                                  Physiotherapy, Occupational, Therapy and Gymnastics, Edward Arnold Pvt.Ltd., 1969.
7. Kiober Grcy     Anatomy and Physiology.
8. Stackpoles     Anatomy and Physiology (6<sup>th</sup> ed.).

**B.Sc. (Physical Education, Health Education and Sports)  
(Semester-II)**

**Paper – V      Theory of Games & Sports -I  
(Track & Field and Gymnastics)**

**Time : Three hours**

**Theory Marks: 60  
Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit ‘Vth’ will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit ‘V<sup>th</sup>.’ is compulsory for all.

**Unit - I**

**1. Middle Distance Running :-**

- a) Correct Running Style emphasis on Proper Body Position and Foot Placement
- b) Practice of Standing Start

**2. Long Jump**

- a) Approach run
- b) Take off
- c) Flying Phase (Hang & running in the Air Styles)
- d) Landing

***Unit - II***

**3 Shot Put**

- a) Holding
- b) Placement of Shot
- c) Initial Stance
- d) Glide
- e) Delivery Stance
- f) Delivery action
- g) Reverse

***Unit - III***

- 1. General Development Exercises with & without Apparatus
- 2. Duties of Judges and Superior Judges on the various apparatuses
- 3. Rules related to the various apparatuses and exercises

## Unit - IV

For Boys

### 1. Vaulting Table

- b) Cat Vault
- c) Straddle Vault

### 2. Pommel Horse

- a) Perfect support Position on Pommel Horse
- b) Half Single Leg Circle
- c) Single Leg Circle Outward (Front support)
- d) Single Leg Circle Inward (Front Support)

### 3. Roman Rings:-

- a) Perfect Swing on Roman Ring
- b) Inverted Hang
- c) L hang
- d) Indicate forward with Bend Body
- e) Indicate Forward with Straight Body

For Girls

### 1. Vaulting Table

- a) Cat Vault
- b) Straddle Vault

### 2. Uneven Bars

- a) Hang higher bar to Squat forward to rear support
- b) Swing
- c) One leg squat rise to scale
- d) Underswing Dismount

## PRACTICAL

50 Marks

### SEMESTER – II

Part – A Track & Field

: 25 Marks

- (a) Spirits
- (b) Distance running
- (c) Jumps (High jump, long jump & Pole vault)
- (d) Throws- short-put javlin discuss

Two events of the following will be assessed for examination.

## Part – B Gymnastics

: 25 Marks

For Boys

### 1. Vaulting Table:-

- a) Cat Vault
- b) Straddle Vault

### 2. Pommel Horse:-

- a) Perfect support Position on Pommel Horse
- b) Half Single Leg Circle
- c) Single Leg Circle Outward (Front support)
- d) Single Leg Circle Inward (Front Support)

For Girls

### 1. Vaulting Table:-

- a) Cat Vault
- b) Straddle Vault

### 2. Uneven Bars:-

- a) Hang higher bar to Squat forward to rear support
- b) Swing
- c) One leg squat rise to scale



d) Under swing Dismount

**3. Roman Rings :-**

- a) Perfect Swing on Roman Ring
- b) Inverted Hang
- c) L hang
- d) Indicate forward with Bend Body
- e) Indicate Forward with Straight Body

**REFERENCES**

1. Chauhan, B.S., Khel Jagat Mein Athletics, Jalandhar: A.P.pub.,1999.
2. Fox, E.L.,Physiological Basis of Physical Education and Athletics,Brown Pub.,1989.
3. Gothi, Ekta, Teaching and Coaching Athletics, N.D: Sports Pub.1997.
4. Anand, Om Parkash., Yoga Dawara Kaya Kalp, Kanpur, Sewasth Sahitya Perkashan,2001.
5. Code of Points Trampoline Gymnastics, Federation Int. De Gymnasics,2005.
6. Federation International Gymnastics, Federation Int. De. Gymnasics,2006.
7. Jain, R,Play and Learn Gymnastics, Khel Sahitaya Kendra, 2005.
8. Pearson, D.Play The Game Gymnastics, Britain : Ward Lock,1991

(Semester-II)

**Theory of Games & Sports - II**  
**Paper-VI (Volleyball Games and Yoga)**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

Note: The question paper will consist of five Units I,II,III,IV,& V, UnitI,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'Vth' will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each.

Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V<sup>th</sup>.' is compulsory for all.

Unit - I

1. Duties of officials before, during and after the competition.
2. Organization of Tournament at district, state, Intramural & Inter college level

Unit - II

1. **Techniques of Volleyball:-**
  - a) Footwork
  - b) Spiking – Straight arm, Round Arm,
  - c) Blocking – Individual & Group
  - d) Dives & Rolls
2. **Tactics:-**
  - a) Individual & Group Tactics
  - b) Tactics of Offence
  - c) Tactics of Defense

Unit - III

1. Shat Karma – Techniques & Importance
2. Asthang Yoga – Yama, Niyam, Asana, Pranayama, Pratihara, Dharana, Dhyana and Samadhi
3. Difference between Yogic & Non-yogic System of Exercise.

Unit - IV

1. Importance of Asanas
2. Techniques & Benefits of Following Asanas
  - a) Tadasana
  - b) Vrikshasana
  - c) Spiritkarani
  - d) Bakasana
  - e) Ardhamastenderasana
  - f) Matsyasana

- g) Janusirasana  
3. Jal Neti / Sutra Neti, Kapalbhathi  
4. One technique of Pranayama

**PRACTICAL**

**50 Marks**

**SEMESTER – II**

Part –A Volleyball Games : 25 Marks

1. General and Specific Warming up
2. Techniques
  - a) Service – Under Arm, Side Arm, Overhead & Floating
  - b) Pass – The Volley, The dig
  - c) Player’s Stance – Receiving the ball and Passing the Teamates

Part – B Yoga : 25 Marks

**1. Techniques of following Asanas :-**

- a) Padmasana
  - b) Vajrasana
  - c) Halasana
  - d) Vakrasana
  - e) Sarvangasana
  - f) Vipritkarani
  - g) Bhujangasana
  - h) Surya Namaskar
2. Jal Neti / Sutra Neti, Kapalbhathi  
3. One technique of Pranayama

**REFERENCES**

1. Anand, Om Prakash. Yog Dawra Kay Kalo, Kanpur, Sewasth Sahitya Perkashan,2001.
- 2.Sarin, N.,Yoga Dawara Ragoon Ka Upchhar, Khel ahitya Kendra,2003.
- 3.Sri., Swami Rama, Breathing, Rishikesh,Sadhana Mandir Trust,2001.
4. Swami, Ram., Yoga & Married Like, Rishikehs Sadhana Mandir Trust,2000.
5. Swami, Veda Bharti., Yoga Polity, Economy and family, Rishikesh Sadhana Mandir Trust,2000.
- 6.American Program, Coaching Youth Volly Ball, Campaign, H.K.,1996.
7. FIVB, Backcourt Spiking in modern Volly Ball,Chennai:FIVB,1996.
8. Sagar, S.K., Cosco Skills Stactics- Volley Ball, Delhi: Sports Publication,1994.
9. Scates, A.E.Winning Volley Ball, WC Brown,1993.

**Scheme of Examination for B.Sc. (Physical Education, Health Education and Sports).  
Six  
Semester Course.**

**IIIrd. Semester**

	<b>Theory Marks</b>	<b>Int. Assessment</b>	<b>Total Marks</b>
Paper-Ist. English	60	15	75
Paper-IIInd. Health and Safety Education	60	15	75
Paper-IIIrd. Physiology of Exercise	60	15	75
Paper-IVth. Theory of Games (Athletics and Gymnastic)	60	15	75
Paper Vth. Theory of Games /Sports (Basketball)& Vocational Oriented Course (Physiotherapy)	60	15	75
<b>Total Marks</b>			<b>375</b>

**IVth. Semester**

Paper- I English	60	15	75
Paper-II First aid and Rehabilitation <b>(Theory)</b>	60	15	75
<b>(Practical)</b>			<b>50</b>
Paper-III Physiology of Exercise <b>(Theory)</b>	60	15	75
<b>(Practical)</b>			<b>50</b>
Paper-IVth. Theory of Games (Athletics and Gymnastics) <b>(Theory)</b>	60	15	75
<b>(Practical) (Athletics and Gymnastic)</b>		<b>(25+25)</b>	<b>50</b>
Paper-Vth. Theory of Games /Sports (Basketball)& Vocational Oriented Course (Physiotherapy) <b>(Theory)</b>	60	15	75
<b>(Practical) a) Basketball b) Physiotherapy</b>		<b>(25+25)</b>	<b>50</b>
<b>Total Marks</b>			<b>575</b>

**Grant Total 375+ 575=950**

# **SYLLABUS**

## **B.Sc.(Physical Education , Health Education & Sports)**

### **PAPER-I**

### **(ENGLISH)**

### **Semester-III**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note: The paper setter will set the question as per the syllabus and according the standard of the course.**

#### **Books : English through Reading**

1. Following three chapters from the above written book. (15 Marks)

I. Civilization and history

II. The Fun they had

III. Oil

(One general question with internal choice)

2. Comprehension – from above mentioned chapters of text book (10 Marks)

3. Grammer from above mentioned chapters of text book. (15 Marks)

a) Articles

b) Voice

c) Narration

d) Prepositions

e) Tenses

4. Translation from Hindi to English (10 Marks)

5. Essay writing related to games and sports (10 Marks)

**SYLLABUS**  
**B.Sc.(Physical Education, Health Education &Sports)**  
**PAPER-II**  
**(HEALTH AND SAFETY EDUCATION)**  
**Semester-III**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit v is compulsory for all.

**UNIT-I**

- Meaning of Health. Relationship of physical mental emotion & social health with each other
- Importance of health for individual, family, community and Nation
- Meaning of Health Education. Its needs, scope ,aim & objectives
- Principles of health education and Programme for health education

**UNIT- II**

- World health Organization and other voluntary Agencies
- Effort to reduce ill effect of environment on health
- Health Problems of college students, use of leisure time , recreation and traveling
- Meaning and importance of personal hygiene, care of skin, eyes, ears, nose, feet hands and hairs.

**UNIT-III**

- Meaning of importance of safety education
- Prevention of accidents.
- Needs of safety education in physical education & sports.
- Safe environment health careers available in India

**UNIT-IV**

- Principles of safety with respect of building & play fields.
- Equipments, dress etc. safety in water ,
- Safety during floods, hurricane. Thunder lighting, air raids ,
- Safety of roads , camps, picnics & tours

### **Books recommended for further study:**

- Bauer, W.W (Editor) Today' Health Guide, American, Medical Association, Revised Edition 1968.
- Harg jossie Helen, School Health Programme New York, Holt Reinehart Nad Winston, Inc, 1965.
- Ariderson, CL school Health Practice., ed.4, saint laduies, the C.V. Maby Com., 1968
- Health Education by Moss and other ( National Education on Association at UTA)
- Turner et al: school Health Education, Harper st. louis , The V.C Mosby Co. 1976.
- Hamir A : The school Education , Harper and Brother Newyork, 1965.
- Oberteutfar D: School Education Harper and Brother New York, Latest edition, 1972

**B.Sc.(Physical Education , Health Education & Sports)**

**PAPER-III**

**(PHYSIOLOGY OF EXERCISE)**

**Semester-III**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five Units I, II, III, IV & V, Unit I, II, III, & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'V' will consist of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from Unit I, II, III, & IV and Unit 'V.' is compulsory for all.

**UNIT-I**

- **Meaning of Physiology of Exercise.**
- **Importance of Physiology of Exercise in the field of Physical Education & Sports.**
- **Nature of Physiology of Exercise.**

**UNIT-II**

- **Meaning and types of exercise.**
- **Effects of exercise on muscular system.**
- **Effects of exercise on respiratory system .**
- **Effects of exercise on cardio-vascular system**

**UNIT -III**

- **Muscles and types of muscles.**
- **Properties of voluntary muscles.**
- **Functions of voluntary muscles.**
- **Conditions affecting muscular contraction.**



#### **UNIT-IV**

- **Definition of Physical Fitness.**
- **Components of Physical Fitness.**
- **Benefits of Physical Fitness.**
- **Factors influencing Physical Fitness.**

#### **Books recommended for further study:**

- **Devies,H.A. Physiology of exercise for Physical Education and Athletes' London:Staples Press,1979**
- **Lal,D.C. 'Hand book of Exercise Physiology'New Delhi:Sports Publication:2006**
- **Tiwari,Sandhya 'exercise physiology' Physiology'New Delhi:Sports Publication:2009**
- **Singh,Ajmer et.al.'Essentials of Physical Education'New Delhi:Kalyani Publication:2003**
- **Srivastava et.al. 'Text book of Practical physiology' Kolcutta:Scientific book agency.1976**
- **Chatterjee,C.C. 'Human Physiology'New Delhi:Prentice Hall of India Pvt Ltd.,1973**
- **Macey,Robert I. 'Human Physiology'New Delhi:Prentice Hall of India Pvt Ltd.,1973**

## **B.Sc.(Physical Education, Health Education &Sports)**

### **PAPER-IV THEORY OF GAMES (ATHLETICS AND GYMNASTICS) Semester-III**

**Time : Three hours**

**Theory Marks: 60  
Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit v is compulsory for all.

#### **Unit -1**

- Marking of Standard Track
- Distribution of Staggers
- Marking of Acceleration and Exchange's Zone in relay races.
- Style of Baton Exchange (Visual and Non Visual) in relay races.
- Fixing up Runners for Different relay races
- General rules of the competition

#### **Unit-II**

- Marking and complete measurement of landing Pit and runway of triple jump
- General rule of the competition
- Teaching of different stages / phases of triple jump
  - a) Approach Run
  - b). Take off. For hop, Step, Jump and Landing of Hop& Step
  - c). Flying Phases
  - d). Landing
- Preparation of Score Sheet

#### **Unit –III**

- Definition of Gymnastics and kinds of Gymnastics
- Various safety measure used in Gymnastics.
- Measurement and Diagram of various apparatuses of Gymnastics

- General rules of the competition

## Unit –IV

Techniques of exercises on Gymnastics Apparatuses

### For Boys

#### Floor Exercises

1. Stand Scale front ways ,Side ways
2. Jump forward to roll Forward(Dive roll)
3. Round off
4. Head spring
5. Hand spring

#### Parallel Bar

- Front Upraise to hand Support with one leg (Right or Left)
  - “L” Support
  - Roll backward on Upper arms
  - Roll Forward on Upper arms
  - Swing to Hand stand

#### Horizontal Bar

- Single leg up- Start (with Straight Leg)
- Sole Circle Forward(leg Bent)
- Hip Circle Backward
- Front hip Circle
- Straddle Dismount

### For Girls

#### Floor Exercises

1. Front Split
2. Side Scale
3. Hand Stand to Bridge
4. Roll backward to hand Stand
5. Back walk -Over
6. Hand Spring

#### Balancing Beam

1. Jump to squat stand
2. Scissor Lead Jump
3. “V” Balance
4. Roll Forward
5. Standing scale Sideways

## Books recommended for further study:

### ATHLETICS:

Varghese,Sandhu ‘Teaching and Coaching of Athletics’, Sports Publication,New Delhi,2006

Vidyasagar,’Training Systematics in throwing’ NIS Publication,Patiala,1979

Narang,P.’athletic Training’p.Narang;Lakshay Publication New Delhi 2005

Syal,Meenu, ‘Teach yourself Sprinting’ Prena Publication,Delhi,2004

Balayan.D. ‘play and learn thowing’ Khel sahitya Kendra,New Delhi,2008

Arrora,Monika ‘Athletics –Coaching Manual’ Sports Publication,New Delhi,2005

-Sharma,O.P. ‘Athletics- Skill & Rules. Khel sahitya Kendra,New Delhi,2003

**GYMNASTICS:**

Cooper,Phyllis AND Trnka,Milan’ Teaching gymnastics skills to men and women’Surjeet  
Publication,Delhi,1982

Bawa, Gurdial Singh ‘Fundamentals of men’s Gymnastics’Friends Publications(India) Delhi,1994

Brown ,James R. and Wardell David B. ‘Teaching and Coaching Gymnastics for men and WOMEN’ john  
wiley and SONS,New  
York,1980

Madak Pinto ‘Coaching Gymnastics’ Khel sahitya Kendra,New Delhi,2000.

Thani lokesh ‘Skills and Tactics-Gymnastics, Sports publication ,New Delhi,1995.

Nagi Kunal ‘Teach Yourself Men Gymnastics’ Sports publication ,New Delhi,2007

Nagi Kunal ‘Teach Yourself Women Gymnastics’ Sports publication ,New Delhi,2007

Thani Lokesh ‘Gymnastics’ Sports publication ,New Delhi,2000

## **B.Sc.(Physical Education , Health Education & Sports)**

### **PAPER-V**

#### **[THEORY OF GAMES/SPORTS(BASKETBALL) & VOCATIONAL ORIENTED COURSE(PHYSIOTHERAPY)]**

#### **Semester-III**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five Units I, II, III, IV, & V, Unit I, II, III, & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'V' will consist of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V.' is compulsory for all.

#### **UNIT-I**

- History of Basket Ball : a) In India (b) In Asia (c) In World
- Organisation of Basket Ball : Working Federation of Basket Ball at District Level State Level, National Level and International Level
- Warming Up: Meaning, Definition, Importance Of Warming up
- Principles of Warming Up, training load

#### **UNIT- II**

- Cooling Down : Its meaning and Importance
- Layout and Maintenance of Basket Ball Play field
- Equipment of Basketball and their specifications
- Sports awards and personalities of Basket Ball

#### **UNIT III**

- Meaning and definition, objectives and importance of Physiotherapy

- Guiding Principles of Physiotherapy
- Electro Therapy: Meaning, sources of direct current, effects of direct current
- Actinotherapy: Meaning of Infrared rays, Ultra-violet rays , their sources effects and techniques
- Hydrotherapy: Meaning of Hydrotherapy and Cryotherapy, techniques and benefits of wax bath, contrast bath and whirlpool bath

#### **UNIT IV**

- Massage Therapy: Meaning, Definition and history of massage
- Physiological Effects of general massage on circulatory and respiratory systems.
- Exercise therapy : Meaning of exercise therapy
- Fundamental Position: Lying position , sitting position, standing position, kneeling position and hanging position with uses and modifications

#### **Books recommended for further study:**

##### **BASKETBALL:**

Coleman and Ray, 'Basketball' An official E.B.B.A. Publication, West Yorkshire, 1976.

Pruitt, Jim 'Play Better Basketball' Matchplay Books, Wiltshire, 1982.

Jain, Renu 'Teach yourself basketball' Prena Publication, Delhi, 2004

Sharma, O.P. 'Basketball –skill & rules' Khel Sahitya, New Delhi, 2003.

Sharma, J.P. 'Skills & Techniques –Basketball' Khel Sahitya, New Delhi, 2008.

##### **PHYSIOTHERAPY:**

Wale, J.O. 'Tidy, S Massage And Remedial Exercise', Henery Ling Ltd. The Dorset Press, UK, 1987

Chandra Shekher, K. 'sports physiotherapy' khel sahitya kendra, new delhi, 2003

Pandey, P.K. & Gupta, L.C. 'Outline of Sports Medicine' Jaypee Brothers, New Delhi, 1996

Thomson, Ann, Skinner & Piercy, Joan 'Tidy's Physiotherapy', Verghese Publishing House, New Delhi, 1996

Ambast, Anju, 'Prevention and Treatment of Sports Injuries' Khel Sahitya, New Delhi, 2005.

Griffith, Winter, H. 'Complete guide to Sports Injuries' The Body Press/Perigee, New York, 1986.

**B.Sc.(Physical Education , Health Education & Sports)**

**PAPER-I  
(ENGLISH)  
Semester-IV**

**Time : Three hours**

**Theory Marks: 60  
Int. Assessment : 15**

**Note: The paper setter will set the question as per the syllabus and according the standard of the course.**

**Books : English Through Reading**

1. Following four chapters from the above written book (15 Marks)
  - I. An observation and an explanation
  - II. A wrong man in worker's paradise
  - III. Making surgery safe
  - IV. Using hand wisely
2. Comprehension : From above mentioned chapters of text book (15 Marks)
3. Grammar from above mentioned chapters of text book (10 Marks)
  - a) Articles
  - b) Voice
  - c) Narration
  - d) Prepositions
  - e) Tenses
4. Translation from Hindi to English (10 Marks)
5. Letter writing (Official) (10 Marks)

## **B.Sc.(Physical Education, Health Education &Sports)**

### **PAPER-II**

#### **(FIRST AID AND REHABILITATION)**

#### **Semester-IV**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit v is compulsory for all.

#### UNIT-I

- Meaning scope aim and objectives of first aid
- Importance of first aid in physical education and sports
- Types of First Aid
- First aid box and its articles.

#### UNIT-II

- Causes of sports injuries
- Principles of First Aid
- Qualities and functions of First Aider
- First Aid and emergency treatment of various cases-drowning, dislocation, fracture, burns, electric shock, snake bite& poison

#### UNIT-III

- Rehabilitation procedures of sport injuries.
- Principles of Rehabilitation of injuries and Exercises for rehabilitation
- Balanced diet and its constituents
- Massage and its types

#### UNIT-IV

- Meaning and types of Disability.
- Causes of Disability.
- Problems of the Disabled persons
- Preventive measures of Disability



## **PRACTICAL**

**50 MARKS**

- **FIRST AID AND EMERGENCY TREATMENT OF FOLLOWING CASES-**

- a)drowning,
- b)dislocation,
- c)fracture,
- d)burns,
- e)electric shock,
- f)snake bite
- g) poison

- **TYPES OF BANDAGES**
- **ARTIFICIAL RESPIRATION**
- **FIRST AID BOX**
- **TRANSPORTATION OF INJURED PERSONS**
- **PRACTICAL NOTE BOOK AND VIVA**

### **Books recommended for further study:**

1. Armstrong and Tuckler; Injuries in sports, London, Staples Press, 1964
2. Bolan J.P : Treatment and prevention of Athletic injuries.
3. Rasch, P.J inters state printer and publisher, 1967.
4. Morehouse, L.E and Rasch, P.J; Sports medicine for Trainers, Philadelphia
5. W.B Saunder Co., 1963.
6. Ryans Allan : Medical Care of the Athlete, McGraw Hill.
7. Morehouse : Physiology of exercise
8. Falls : Exercise Physiology
9. Karpovich : Physiology of Muscular activity
10. Pande, P.K."Know how sports medicine?"AP Publication, Jalandhar.
11. Safety at school (Education Pump let Number -53) London :Her Majesty 's Stationary Office 1969
12. School Safety Policies –Washington L.C American Association For Health, Physical Education and Recreation
13. Stack, Harbert J,DukeElkow Education for safe Living:: Englawood Cliff, New Jersey , Prentice Hall Inc,1966
14. Florio, A.& Stafford G.T-safety Education New York, Mc Graw Hill Book Com.1967
15. Evans, A William Everyday safety, Chicago :Iyon and Camaha

**B.Sc.(Physical Education , Health Education & Sports)**

**PAPER-III**

**(PHYSIOLOGY OF EXERCISE)**

**Semester-IV**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five Units I, II, III, IV& V, Unit I,II,III,&IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'V' will consists of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from Unit I,II,III,& IV and Unit 'V.' is compulsory for all.

**UNIT-I**

- **Effect of exercise on excretory system.**
- **Effect of exercise on metabolic processes.**
- **Effect of exercise on endocrine system.**

**UNIT-II**

- **Structure of voluntary muscle.**
- **Structural classification of muscles.**
- **Nervous control of muscular contraction.**
- **Energy for muscular work.**

**UNIT-III**

- **Physiological concept of Speed.**
- **Physiological concept of Strength.**
- **Physiological concept of Endurance.**
- **Physiological concept of Agility.**

## **UNIT-IV**

- **Physiological concept of Vital capacity, Second Wind& Oxygen Debt.**
- **Physiological concept of Fatigue.**
- **Physiological basis of Warming up.**
- **Environmental factors affecting sports performance.**

### **PRACTICAL**

**50 marks**

- **To listen the breadth sound by means of stethoscope.**
- **To listen the heart sound by means of stethoscope.**
- **To study the effect of exercise on pulse.**
- **Harvard step test of cardio-vascular endurance.**
- **To measure the vital capacity.**
- **To measure the ability to react and move quickly and accurately(Nelson choice response movement test).**
- **To test the vision by Snells vision chart.**
- **To test the colour vision by Ischihara colour vision charts.**

### **Books recommended for further study:**

- **Devies,H.A. Physiology of exercise for Physical Education and Athletes' London:Staples Press,1979**
- **Lal,D.C. 'Hand book of Exercise Physiology'New Delhi:Sports Publication:2006**
- **Tiwari,Sandhya 'exercise physiology' Physiology'New Delhi:Sports Publication:2009**
- **Singh,Ajmer et.al.'Essentials of Physical Education'New Delhi:Kalyani Publication:2003**
- **Srivastava et.al. 'Text book of Practical physiology' Kolcutta:Scientific book agency.1976**
- **Chatterjee,C.C. 'Human Physiology'New Delhi:Prentice Hall of India Pvt Ltd.,1973**
- **Macey,Robert I. 'Human Physiology'New Delhi:Prentice Hall of India Pvt Ltd.,1973**

**B.Sc.(Physical Education, Health Education & Sports)**  
**PAPER-IV**  
**THEORY OF GAMES**  
**(ATHLETICS AND GYMNASTICS)**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

**Note:** The question paper will consist of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consist of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

**Unit -1**

- Marking and Specific measurement of throwing sector and discus
- General Rule of Discus throw Competition
- Teaching of Different stages of Discus throw

1. Holding
2. Initial stance
3. Preliminary swings
4. Turns
5. Delivery action
6. Reverse

- Score Sheet of Discus Throw

**Unit -II**

- Correct running Style emphasizing on proper body position and foot placement in long distance races
- Proper Leg and arm Action in long distance races
- Running Tactics in long distance races
- Detailed list of officials and their duties of the Athletics Meet

**Unit –III**

- Organization of Gymnastics Competition, Types of Competition and Method of Scoring.
- Define Gymnasium Hall, Size, and Facilities to be provided in a Gymnasium hall.
- Measurement and Diagrams of Following apparatuses of Gymnastics.
- Vaulting Table
- Pommel Horse/Uneven Parallel Bar
- Roman Ring

## Unit –IV

Technique of exercises on Gymnastics Apparatuses

### For Boys

#### Vaulting table

- 1 . Jump to Straddle Stand
- 2 . Squat Vault

#### Pommel

1. Jump to Front Support
2. Single Leg Circle Outward(From Un- even Support ) backward
3. Scissor Forward
4. Both Leg Circle
5. Single leg Dismount forward

#### Roman Ring

1. Hanging scale rear ways.
2. Up- Start
3. “L” Support on Roman ring
4. Shoulder Stand
5. Dislocation

### For Girls

#### Vaulting table

1. Jump to Straddle Stand
2. Squat Vault

#### Un- Even Parallel Bar

1. Jump to Front Support
2. Squat Through with one leg
3. Single Leg Circle forward
4. Single Leg Circle backward
5. Free Hip Circle backward
6. Under Swing dismount over the low bar

## PRACTICAL 50 MARKS(25+25)

### 1. ATHLETICS

25 MARKS

#### RELAY RACES:

- Style of Baton Exchange (Visual and Non Visual) in relay races.
- Fixing up Runner for Different relay races
- General rules of the competition

#### TRIPLE JUMP:

- Teaching of different stages / phases of triple jump
  - a) Approach Run
  - b). Take off. For hop, Step, Jump and Landing of Hop+ Step

c). Flying Phases

d). Landing

- General rules of the competition

### **DISCUS THROW:**

- Teaching of Different stages of Discus throw

a). Holding

b) Initial stance

c). Preliminary

d). Turn

e) Delivery action

f) Reverse

- General rules of the competition

### **LONG DISTANCE RACES:**

- Correct running Style emphasizing on proper body position and foot placement

- Proper Leg and arm Action

- Running Tactics

- General rules of the competition

### **PRACTICAL NOTE BOOK & VIVA**

## **2. GYMNASTICS**

**25 MARKS**

### **For Boys**

### **For Girls**

#### **FLOOR EXERCISES**

#### **FLOOR EXERCISES**

- Stand Scale front ways ,Side ways
- Jump forward to roll Forward(Dive roll)
- Round off
- Head spring
- Hand spring

Front Split  
Side Scale  
Hand Stand to Bridge  
Roll backward to hand Stand  
Back walk -Over  
Hand Spring

#### **PARALLEL BAR**

#### **BALANCING BEAM**

- Front Upraise to hand Support  
Jump to squat stand with one leg (Right or Left)
  - “L” Support
  - Roll backward on Upper arms
  - Roll Forward on Upper arms
  - Swing to Hand stand

Scissor Lead Jump  
“V” Balance  
Roll Forward  
Standing scale Sideways

#### **HORIZONTAL BAR**

- Single leg up- Start (with Straight Leg)

- Sole Circle Forward(leg Bent)
- Hip Circle Backward
- Front hip Circle
- Straddle Dismount

### **VAULTING TABLE**

- Jump to Straddle Stand
- Squat Vault

### **POMMEL**

- Jump to Front Support
- Single Leg Circle Outward(From Un- even Support )
- Scissor Forward
- Both Leg Circle
- Single leg Dismount forward

### **ROMAN RINGS**

- Hanging scale rear ways.
- Up- Start
- “L” Support on Roman ring
- Shoulder Stand
- Dislocation

### **PRACTICAL NOTE BOOK AND VIVA**

### **VAULTING TABLE**

- Jump to Straddle Stand
- Squat Vault

### **UN- EVEN PARALLEL BAR**

- Jump to Front Support
- Squat Through with one leg backward
- Single Leg Circle forward
- Single Leg Circle backward
- Free Hip Circle backward
- Under Swing dismount over the low bar

## **B.Sc.(Physical Education , Health Education & Sports)**

### **PAPER-V**

#### **[THEORY OF GAMES /SPORTS(BASKETBALL) & VOCATIONAL ORIENTED COURSE(PHYSIOTHERAPY)]**

#### **Semester-IV**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

**Note:** The question paper will consist of five Units I, II, III, IV & V, Unit I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit 'V' will consist of 10 short answer type questions which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from Unit I, II, III & IV and Unit 'V.' is compulsory for all.

#### **UNIT I**

- Fundamental Skills of Basketball:- a) Passes -Two hand chest pass , Two hand bounce pass, overhead pass, side arm pass, hook pass and back pass
- Dribbling: High low and reverse dribbling
- Shooting: Lay up Shot, Free Shot, Hook Shot, Jump Shot
- Rebounding: Offensive and Defensive

#### **UNIT II**

- Techniques and Tactics:- Meaning, Definition and types of tactics- Offensive ( Fast Break , Offensive against Man to man, Offensive against zone Defence), Defensive (Man to Man Defence and Zone Defence)
- Motor qualities related to basketball and their training.
- Officiating: Meaning, officials and their duties.
- Rules and their interpretation



### **UNIT-III**

- Electrotherapy: Meaning and uses of high frequency current, short wave diathermy and ultrasound therapy.
- Sports Injuries: Meaning, definition of sports injuries, precautions and preventions of sports injuries.
- Hydrotherapy: Hot Packs, Mud Bath, Spring Water Bath, Under water exercises
- Massage therapy: Meaning, Classification and Techniques of Massage, Lubricants used in massage
- Stroking/ Effleurage, Kneading/ Petrissage, Rubbing/ Friction, Tapotment, Vibration and Shaking

### **UNIT IV**

- Exercise Therapy : Basic Mechanical Points, Centre of Gravity, Line of Gravity, Planes and Axis
- Traction Therapy: Meaning, Uses and Techniques of Traction
- Classification of Movements : Active , passive and resistive and their effects
- Physiological Classification of movements: Voluntary and involuntary movements (associated, reflex and cardiac movements)

### **Books recommended for further study:**

#### **BASKETBALL:**

**Coleman and Ray, 'Basketball' An official E.B.B.A. Publication, West Yorkshire,1976.**

**Pruitt,Jim 'Play Better Basketball' Matchplay Books,Wiltshire,1982.**

**Jain,Renu 'Teach yourself basketball'Prena Publication,Delhi,2004**

**Sharma,O.P. 'Basketball –skill &rules' Khel Sahitya,New Delhi,2003.**

**Sharma,J.P. ' Skills& Techniques –Basketball ' Khel Sahitya, New Delhi,2008.**

#### **PHYSIOTHERAPY:**

**Wale,J.O.'. Tidy.S Massage And Remedial Exercise', Henery Ling Ltd. The Dorset Press ,UK, 1987**

**Chandra Shekher,K. 'sports physiotherapy'Khel Sahitya Kendra, New Delhi,2003**

**Pandey,P.K.&Gupta ,L.C.'Outline of Sports Medicine'Jaypee Brothers,New Delhi, 1996.**

**Thomson,Ann, Skinner & Piercy, Joan 'Tidy's Physiotherapy',Verghese Publishing House, New Delhi,**

1996

Ambast, Anju, 'Prevention and Treatment of Sports Injuries' Khel Sahitya, New Delhi, 2005.

Griffith, Winter, H. 'Complete guide to Sports Injuries' The Body Press/Perigee, New York, 1986

**PRACTICAL**

**50(25+25) Marks**

**a) BASKETBALL**

**25 Marks**

- **Players stance and ball handling**
- **Passing and receiving techniques**
- **Passing -Two hand chest pass , Two hand bounce pass, overhead pass, side arm pass, hook pass and back pass**
- **Dribbling: High and low dribbling**
- **Shooting: Lay up Shot, Free Shot, Hook Shot , Jump Shot**
- **Rebounding: Offensive and Defensive**
- **Tactics- Offensive ( Fast Break , Offensive against Man to man, Offensive against zone Defence), Defensive (Man to Man Defence and Zone Defence)**
- **Practical Notebook and Viva**

**b) PHYSIOTHERAPY**

**25 Marks**

- **Electrotherapy: Short wave diathermy and ultra sound therapy.**
- **Hydrotherapy: Hot Packs, Mud Bath, Spring Water Bath, Under water exercises**
- **Massage Therapy:- Stroking/ Effleurage, Kneading/ Petrisage, Rubbing/ Friction, Tapotment, Vibration/ Shaking ,massage of upper limbs, lower limbs, back, head, face, chest and abdomen.**
- **Exercise Therapy:- Active , passive and resistive movements**

- Practical Notebook and Viva

**Scheme of Examination for B.Sc. (Physical Education, Health Education and Sports).  
Six Semester Course.**

**Vth. Semester**

	<b>Theory Marks</b>	<b>Int. Assessment</b>	<b>Total Marks</b>
Paper-Ist. Psychology & Sociology of Physical Education & Sports	60	15	75
Paper-IIInd. Fundamentals of Sports Training	60	15	75
Paper-IIIrd. Kinesiology & Bio-Mechanics	60	15	75
Paper-IVth. Theory of Games & Sports	60	15	75
Paper-Vth. Theory of Games /Sports (Kho-Kho) & Vocation Oriented Course (Physiotherapy)	60	15	75
Paper-VIth. English	60	15	75
		<b>Total: <u>450</u></b>	

**VIth. Semester**

Paper-Ist. Psychology & Sociology of Physical Education & Sports	60	15	75
<b>Practical</b>			<b>50</b>
Paper-IIInd. Fundamental of Sports Training	60	15	75
<b>Practical</b>			<b>50</b>
Paper-IIIrd. Kinesiology & Biomechanics	60	15	75
<b>Practical</b>			<b>50</b>
Paper-IVth. Theory of Games & Sports i)Track & Field ii) Game of Specialization)	60	15	75
<b>Practical</b>			<b>50</b>
Paper-Vth. Theory of Games /Sports (Kho-Kho) & Vocation Oriented Course (Physiotherapy)	60	15	75
<b>Practical</b>			<b>50</b>
Paper-VIth. English	60	15	75

**Total: 700**

**Grant Total of Vth.& VIth. Semester 450+700=1150**

**Syllabus for BSc. III Health Education Physical Education & Sports Science**

**( Semester –V )**

**Paper-Ist. Psychology & Sociology of Physical Education & Sports**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all

**Unit-1**

- Meaning & Scope of Psychology & sports Psychology
- Psychological factors effecting Physical Education
- Meaning & Nature of Learning
- Laws of learning ,type of learning curve
- Learning Process

**Unit-2**

- Motivation , Meaning & Definition
- Role of Motivations in Physical Education & Sports
- Types of Motivation, Methods of Motivation Importance of Motivation in Phy. Edu. & Sports

**Unit-3**

- Sociology , Meaning of Sociology
- Scope of Sociology
- Sociology of Physical Education & Sports
- Social Significance of Sports

**Unit-4**

- Sports as an Socializing Agency
- Social Phenomenon
- Sports & Socialization
- Definition of Socialization group cohesion

## Semester V

### **Paper –II Fundamentals of Sport Training**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all

#### **Unit 1**

Meaning & Definition of Sports Training  
Aims of Sport Training objectives of sports Training.  
Characteristics of Sports Training  
Important Features of Training Load

#### **Unit 2**

Training Plan  
Long term & short term plan  
Cycle process of Training  
Method of development of technique

#### **Unit 3**

Definition of load & Training Load  
Type of Load  
Relationship between load & adaptation  
Condition of adaptation

#### **Unit 4**

Physical fitness  
Development of important motor components  
Strength training means & methods  
Endurance- forms of endurance, means & methods

## Semester-V

### **Paper-IIIrd. Kinesiology & Biomechanics.**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consist of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

#### **Unit I**

- Meaning of Bio Mechanics
- Aim and objectives of bio mechanics
- Importance of bio mechanics in the field of physical education and sports
- Meaning and types and causes of motion

#### **Unit II**

- Meaning of linear kinematics
- Speed, velocity, acceleration and projectile motion
- Meaning of angular kinematics
- Angular speed, Angular velocity and angular acceleration

#### **Unit III**

Relationship between linear and angular acceleration

- Meaning of linear kinetics
- Mass weight, force, pressure, work, power, energy, friction
- Meaning of angular kinetics

#### **Unit IV**

- Movement of inertia, conservation of momentum and transfer of momentum
- Meaning and types lever
- Meaning types equilibrium
- Newtons Law of Motion

#### **BOOKS RECOMMENDED FOR FURTHER STUDY:**

1. A.Yobu, Sports Biomechanics Jogishwar Goswami Basic Kinesiology Friends Publication India 2009
2. Bunu, Scientific principals of coaching, Prentics Hall, Inc. N.J. 1962
3. Dysom, the mechanics of athletics, Halmes and Meiar M.K. 1977
4. Hay, the biomechanics of sports techniques Prentics Hall, Inc. N.J. 1978
5. Mechnotech Biomechanic Sportlicher Bowegungun sports verley Berlin 1978

6. Miller and Nelson, biomechanics of sports, Log and Fehier, Philadalphia 1973
7. P.D.Sharma Gativigyan ka yantrik Vishlashan Jogishwar Goswami Basic Kinesiology Friends Publication India 2009
8. Rajlakshmi D. Biomechanics in games and sports Friends Publication India 2009
9. Sussan J Hall Basic Biomechanics Friends Publication India 2009
10. Uppal, A.K. Biomechanics in physical education and exercise science, Friends Publication India 2009

# Semester V

## Paper-IV. Theory of Games & sports

- 1) Athletics
- 2) Handball

Time : Three hours

Theory Marks: 60

Int. Assessment : 15

**Note:** The question paper will consist of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consist of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

### Unit I

#### Hurdles

- ❖ Swinging leg action
- ❖ Training leg action
- ❖ Clearance of hurdle emphasizing on proper truck
- ❖ Position & arm action.
- ❖ Development rhythm from start to first hurdles & be between hurdles

### Unit- II

#### Pole Vault:

- ❖ Pole grip & carry.
- ❖ Role plant.
- ❖ Rock back
- ❖ Pull up
- ❖ Push up
- ❖ Bar clearance
- ❖ Landing

### Unit III

#### ❖ History of Handball:-

The correct way to catch the ball with two hands,  
Catching the low ball, running, catching the high ball,  
Catching the ball to the side.

Diagram of hand ball court, preparation of score sheet

### Unit IV

- ❖ Passing & Throwing:
- ❖ Two handed chest pass
- ❖ One handed shoulder pass



- ❖ The reverse pass
- ❖ The pass to the side
- ❖ The long pass

C Running with the ball (dribbling )..

### Semester-V

## **Paper-V: Theory of Games/ Sports (Kho-Kho) & Vocational Oriented Course (Physiotherapy)**

**Time : Three hours**

**Theory Marks: 60  
Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

### Kho-Kho

#### Unit I

- History of Kho-Kho in India
- Organisation of Kho-Kho: working federation of kho-kho at district level, state level and national level.
- Warming up meaning, definition types and importance of warming up.
- Maintenance of Score Sheet

#### Unit II

- Layout and Maintenance of Kho-Kho play field
- Equipment used in Kho-Kho and their specifications
- Motor qualities related to Kho Kho and their training
- Training load – Meaning & its types

### PHYSIOTHERAPY

#### Unit III

##### Exercise Therapy :-

- Posture meaning, classification of posture, values of good posture, causes of poor posture.
- Postural deformities, Kyphosis, Lordosis and Scoliosis causes, corrective exercises
- Method of checking Posture Alignment

#### Unit IV

##### Circulatory System:-

- Meaning physiology of heart, causes of heart failure, coronary occlusion and thrombosis, chronic valvular disorder, symptoms, causes and treatment

Respiratory System:-

- Meaning, organs, Bronchitis, Tuberculosis, symptoms, causes and treatments

**Arthritis** :-

- Meaning, Rheumatoid Arthritis, Osteo Arthritis Symptoms, Causes and treatment of Arthritis.

**BOOKS RECOMMENDED FOR FURTHER STUDY:**

**Kho-Kho**

**Mishra Shard Chander (2007) Kho Kho Seekhain . Sports Publication New Delhi**

**AP Publisher (2003) Kho Kho , 19 Market Chownk Adda Tanda, Jalandhar**

**Physiotherapy:**

**Wale,J.O.?. Tidy.S Massage And Remedial Exercise',Henery Ling Ltd.The Dorset Press ,UK, 1987**

**Chandra Shekher,K. 'sports physiotherapy'khel sahitya kendra,new delhi,2003**

**Pandey,P.K.&Gupta ,L.C.'Outline of Sports Medicine' Jaypee Brothers,New Delhi, 1996**

**Thomson,Ann,Skinner & Piercy,Joan 'Tidy's Physiotherapy',Verghese Publishing House,New Delhi, 1996**

**Ambast,Anju,'Prevention and Treatment of Sports Injuries' Khel Sahitya,New Delhi,2005.**

**Griffth,Winter,H.'Complete guide to Sports Injuries'The Body Press/Perigee,New York,1986.**

**Semester-V**  
**SYLLABUS**  
**B.Sc. (Physical Education, Health Education & Sports)**

**PAPER-VI**  
**[ENGLISH]**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

1. The following Chapters of book. The Spectrum of Life-Anthology of Modern Press:  
i. If you are wrong Admit it  
ii. Streamlining **20 marks**
2. Summary writing **10 marks**
3. Business letters for puocuring goods etc. **10 marks**
4. Grammar : Common errors & Punctuation **10 marks**
  
5. Vocabulary related to sports ( English to Hindi ): Physical Education, Health Education, Socialisation, Cooperation, Competition, Psychology, Idealism, Pragmatis m, Aim, Objectives, Importance, Culture, Recreation, Offensive, Defensive, Rhythm, C orrective, Dedication, Emotions, Profession, Patriotism, Common Wealth Games, Artistic and Sociology Asian Games, Olympic Spirit, Olympic Motto, Olympic torch, National Flag, National Anthem, National Song, Awards.

**10 Marsk**

**BOOK RECOMMENDED**

**The Spectrum of life – An Anthology of modern press Edited by Manmohan K. Bhat Nagar**  
**MACMILLAN INDIA LTD. 2/10 Ansari Road, Darya Ganj New Delhi-110002**

## Semester VI

### **Paper-Ist. Psychology & Sociology of Physical Education & Sports\_**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consist of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all

#### **Unit-1**

- Transfer of Training
- Definitions of Transfer of Training
- Types of Transfer of Training
- Factors effecting Transfer of Training

#### **Unit-2**

- Personality, Meaning & Definition
- Personality traits
- Characteristics of Personality factors effecting development & personality ( Heredity -& Environment ) Role of Physical Activity in the development of Personality.

#### **Unit-3**

- Relationship of Physical Education & Sports With other Socializing Institutions (family & education System)
- Sports as a regulating institute of Society
- State & Religion
- Role of institutions in Participation in games & sports with regards to either sex

#### **Unit-4**

- Sports & Social Problems
- Behaviour of Sportman & Spectators
- Leadership through Physical Education & Sports
- Qualities & Qualification of good leader.

### **Practical-50 Marks**

Any four test of 10 marks each.

Practical file & viva 10 marks.

1. Sports man Personality test 13+ Spielberger- Indian Adopt
2. Social Intelligence Test Dr. N.K. Chadda Ms. Usha Gane san
3. Sports competition Anxiety Inventory Ravi kant & Dr.V.N. Mishra
4. Inventory for factors influencing sports by Dr. M.L. Kamlesh
5. Sociometry
6. Reaction time
7. will to win Question naire Dr. Kumar Games & Sports interest Test Age12+

## **Book Recommended**

- 1) Al demen, A.B. Psychological Beha vious in sports.  
A.B.Saundder's Co. Saunders (1974)
- 2 Craatty B,J. Psychology & physical a activity-  
Prentice Hall,inc. london (1961)
- 3) Cratty, B,J. Psychology in Cont emporary Sports,  
Prentice Hall, inc . Englewood Ciliff  
(1973)
- 4 ) Cratty, B,J, Social dimenision of physical activity  
Prentice Hall, inc. , B.J.
- 5) Cratty B.J. Social Psychology in athlectice.  
Prentice Hall.inc. F.J. (9981)
- 6) Frost & Rehbon Psychological concepts applied of physical  
1 educational & coaching Massechu satts (1972)
- 7) Kane, J.S. Psychological aspects of education & Sports.
- 8) Jawthar, J.D. Psychological of Coaching present Hall ,  
Inc, R.J. (1951)
- 9) Martens Social Psychology & physical activity harper  
Harper & Row Pub. N.Y. (9175)
- 10) Singer R.N. Coaching , athletics & Psychological Mograw Mills  
Books. Co. (1972).
- 11) Singer R.N. Physical Educational an integrat approach .Rolt ,  
Rivehert & R.Y.(9172)
- 12)Suiin , R.N. Psychology in Sports, Surjit Publication , Delhi  
(1982)
- 13) Hilgera & Atkinson Introduction to Psychology Ox fore & 18M.  
Pub. New Delhi 1979.7.).
- 14) Puni AT Sports NTS, Chandigarh.  
Psychology
- 15) Ajmer Singh Essentials of Physical Education
- 16) Dr. Jagdish Baina B.P.E. , B.P.ed. , D.P.ed. , & M. P.ed. Courses
- 17) Shashi Jain Introduction to Psychology

## Semester VI

### **Paper-IIInd. Fundamental of Sports Training**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

#### **Unit 1**

Motor Components, Meaning  
Importance of motor components  
Development of motor components

#### **Unit 2**

Flexibility & Agility  
Forms of Flexibility & Agility  
Base of Flexibility & Agility  
Development of flexibility & Agility its methods

#### **Unit-3**

Meaning of Coordination  
Coordination Ability  
Development methods of coordination

#### **Unit-4**

Warning up & Cooling Down Types of Warming up Significance of W.U. Methods of W.P. Cooling Down free hand & Stretching Exercise for W.P.& C.D.

#### **Practical- 50 Marks :**

#### **Practical file & viva 10 marks**

Any four of 10 Marks each.

- (a) Continuous Running.
- (b) Interval Training
- (c) Canadian Test for phy. fitness
- (d) Circuit Training
- (e) Weight Training

## **Book Recommended**

- 1 Batty , B: Practical & Motor Development in infants & children. Prentice hall,1979.
- 2 Dick, F.W. ;Sports Training Principles lepus, London 1980.
- 3 enson C.R. Bischer, A.G. Scientific basic of Athletic Condition lea & Bebiger, Philedephie, 1972
- 4 Matweyew, L.:P: Fundamental of Sports training ( Translation form Russian )  
Mir Publisher, Moscow, 1981.
5. Pyke, Frank, S: Towards better Coaching ,Australian Government Publishing  
Services , Canberra, 1980.
- 5 Singh, Hisports Training General Theory & Methods, NIS, Patiala, 1984.
- 7 Willmore,J.H: Athletic Training: & Physical fitness, Allyn & Bacon, Inc Sydney 1977.



## Semester-VI

### **Paper-IIIrd. Kinesiology & Biomechanics.**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

#### **Unit I**

- Meaning of kinesiology
- History of kinesiology
- Aims and objective of kinesiology
- Importance of kinesiology in the field of physical education and sports

#### **Unit II**

- Centre of gravity and line of gravity
- Anatomical standing position and fundamental standing position
- Planes and types of planes
- Axis and types of axis

#### **Unit III**

- Movements on sagittal plane with frontal axis
- Movements on frontal plane with sagittal axis
- Movements on horizontal plane with vertical axis
- Structural classification of muscles

#### **Unit IV**

- Structure of motor actions- cyclic, acyclic and movement combination
- Movement rhythm, movement coupling, movement flow and movement amplitude
- Reciprocal innervation and inhibition
- All or none law, muscle tone and its importance

#### **BOOKS RECOMMENDED FOR FURTHER STUDY:**

1. Cooper and Glasgow, Kinesiology, C.V. Mosby co. Saint Louis, 1976
2. David Paul Green Kinesiology: Movement in the context of activity Jogishwar Goswami Basic Kinesiology Friends Publication India 2009
3. Dugch and Duch, Kinesiology and applied anatomy, Lee and Fabiger, Philadelphin, 1977
4. Graive, Miller, Mitohelgon, Paul and Smith, techniques for the analysis of human movement lapse books London, 1975
5. Hay and Deij, the anatomical and mechanical basis of human motion, Prentics Hall, Inc. N.J. 1982
6. Jogishwar Goswami Basic Kinesiology Friends Publication India 2009

7. Logan and Mckinney, Anatomic Kinesiology, M.C.Brown Co., 1977
8. Marliyn and Hinsen, Kinesiology, Web Dubuque Lown 1977
9. Nancy Hamilton, Kinesiology: The scientific basis of motion (10<sup>th</sup> ed),Friends Publication India 2009
10. Thompson, Manual Structural Kinesiology, Friends Publication India 2009

## **PRACTICAL**

## **50 MARKS**

- Practical Note Book and viva
  
- Centre of gravity, line of gravity
- Anatomical standing position and fundamental standing position
- Planes and types of planes
- Axis and types of axis
- Movements on sagittal plane about frontal axis
- Movements on frontal plane about sagittal axis
- Movements on horizontal plane with vertical axis

# Semester VI

## Paper IVth. Theory of Games & Sports

- i) **Athletic**
- ii) **Handball**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment : 15**

**Note:** The question paper will consists of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each .Unit V will consists of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all

## Unit 1

### Javelin Throw

- ❖ Holding
- ❖ Carry
- ❖ Approach run
- ❖ Last five strids rhythm including impulse stride
- ❖ Delivery stance
- ❖ Reverse

## Unit II

### Hammer Throw

- ❖ Grip
- ❖ Initial stance
- ❖ Preliminary From swings to turns
- ❖ Transition from swings to tums.
- ❖ Truns
- ❖ Delivery Stance
- ❖ Delivery Action
- ❖ Reverse

## Unit III

### ❖ Shooting

- ❖ T he falling shot form outside.
- ❖ The falling shot with feint
- ❖ The diving shot

- ❖ The standing throw shot
- ❖ The jump shot
- ❖ The penalty shot
- ❖ The reverse shot
- ❖ The fall shot

#### **Unit IV**

### **Goal Keeping**

#### **Characteristics of good goal keeper**

#### **Importance of goal keeping.**

#### **Tactics**

#### 6-0 Setting –up defence

- 5-1 Defence formation & movement.
- 4-2 Defence formation & movement.
- 3.2 Defence formation & movement.
  - Attack against 6-0 defence.
  - Attack against 5-1 defence
  - Attack against 4-2 defence
  - Attack against 3-3 defence

- ❖ Duties of officials ( before game during game after the games )

### **Practical – 50 Marks**

25 marks Track & field 5 marks each File & viva 10 marks

25marks Handball file & viva 10 marks & 5 marks each for 3 fundamentals

#### **Books Recomendded**

- ❖ Rowland B.J. Handball a Complete Guide London ;
- ❖ Faber & Faber Ltd., 24 Rosset square ,1970
- ❖ Mend,Charless L? Handball fundamentals.Cino Charle,
- ❖ E.Maril Company (columns) 1968.
- ❖ Philips E. E. Hand ball its play & Management

❖ New York. The Ronald Press Company , 1957

❖ Roberson, Richard & 01 son

❖ Nerbert. Geainning Hand ball

❖ California Wadswor H "Company

❖ Inc. Belmont, 1969.

## SEMESTER-VI

### **Paper-V : Theory of Games/Sports (Kho-Kho) & Vocational Oriented Course (Physiotherapy).**

**Time : Three hours**

**Theory Marks: 60**

**Int. Assessment : 15**

**Note:** The question paper will consist of five units I, II, III & IV will have two questions from their respective units of the syllabus and will carry 10 marks each. Unit V will consist of 10 short answers which will cover the entire syllabus and will carry 2 marks each. Candidates are required to attempt one question each from unit I, II, III & IV and unit V is compulsory for all.

### KHO-KHO

#### Unit I

- Rules and their interpretation
- Factors Affecting Sports performance
- Center of gravity and line of gravity
- Tie Break in Kho Kho
- Officiating meaning and principles of officiating

#### Unit II

- Duties of officials in Kho-Kho( Before, After and during the game)
- Sitting in square and its methods
- Giving Kho and its methods
- Techniques and tactics meaning, attacking and defensive skills.
- Types of Kho-Kho and tapping

#### **PRACTICAL:- 25 Marks**

- Practical Note Book and viva
- Offensive skills- chasing, giving Kho, sitting in the square, covering, ring game, pole dive, simple dive, tapping
- Defensive skills- single chain, double chain, 3,3,2 chain, 2,2,3 chain, ring(short, middle, long) game, pole hold, avoid pole.

## PHYSIOTHERAPY

### Unit III

- Sports Injuries:- Meaning, types, precautions and treatment of sports injuries  
Massage Therapy :- Meaning, physiological effects of general massage on muscular system & nervous System
- Postural deformities :- Bow Leges, Knocking Knees & Flat Foot Causes .Corrective exercise

### Unit IV

- Circulatory System :- Meaning, congenital abnormalities, hyper tension, anemia, symptoms causes and treatment
- Arthritis :- Meaning, Spondylities, Symptoms Causes & treatment
- Deruded positions by moving the arm, leg head , Neck & Trank in all these fundamental position
- Duties of physiotherapists before and after surgery

### PRACTICAL: 25 Marks

- Practical Note Book and viva
- Soft tissue sports injuries- symptoms, causes and treatment
- Massage Therapy- qualities of good massager and lubricants used in massage
- Order of technique of message for different parts of the boby upper limbs & lower limbs
- Bronchitis, tuberculosis symptoms causes and treatment
- Kyphosis , Lordosis , symptoms, causes and treatment.

### BOOKS RECOMMENDED FOR FURTHER STUDY:

#### KHO-KHO

Mishra Shard Chander (2007) Kho Kho Seekhain . Sports Publication New Delhi

AP Publisher (2003) Kho Kho , 19 Market Chownk Adda Tanda, Jalandhar

#### PHYSIOTHERAPY

Wale,J.O.'. Tidy.S Massage And Remedial Exercise',Henery Ling Ltd.The Dorset Press ,UK, 1987

Chandra Shekher,K. 'sports physiotherapy'khel sahitya kendra,new delhi,2003

Pandey,P.K.&Gupta ,L.C.'Outline of Sports Medicine'Jaypee Brothers,New Delhi, 1996

Thomson,Ann,Skinner & Piercy,Joan 'Tidy's Physiotherapy',Verghese Publishing House,New Delhi, 1996

Ambast,Anju,'Prevention and Treatment of Sports Injuries' Khel Sahitya,New Delhi,2005.

Griffth,Winter,H.'Complete guide to Sports Injuries'The Body Press/Perigee,New York,1986.

**SYLLABUS**  
**B.Sc. (Physical Education, Health Education & Sports)**  
**PAPER-VI**  
**[ENGLISH]**

**Semester-VI**

**Time : Three hours**

**Theory Marks: 60**  
**Int. Assessment: 15**

1. The following Chapters of book. The Spectrum of Life-Anthology of Modern Press: **20 Marks**
    - i. The Western intellectual tradition
    - ii. The scientific point of view.
  2. Paragraph writing on Sports related topics **10 Marks**
  3. Grammar : Tag questions, Agreement of verbs and subject & confusion of adjectives and adverbs. **10 Marks**
  4. Vocabulary related to sports (Hindi to English) **05 Marks**
- Full Form of Degree,** **05 Marks**
1. C.Ped.
  2. B.Ped.
  3. M Ped.,M.Phill.
  4. M..P.E Ph.D.
  5. Application writing with bio data for jobs. **10 Marks**

**BOOK RECOMMENDED**

**The Spectrum of life – An Anthology of modern press Edited by Manmohan K. Bhat Nagar**  
**MACMILLAN INDIA LTD. 2/10 Ansari Road, Darya Ganj New Delhi-110002**