

5.3 Drug abuse and doping

5.4 Arbitration and dispute resolution

References:

- Carro, J.E.L. And Calif, S.D. [ed], Medicine & Sport Science: Physical Structure of Olympic Athletes, London: Karger, 1984
- Cliv, Gifford, Summer Olympic" 2004
- Daw, Anderson, The story of the Olympics, 2008.
- Maranirs David, Rome 1960: The Olympics that changed the world, 2008.
- Osborne, Manpope, Ancient Greece and the Olympic, 2004.
- Oxlade, chris., Olympic, 1999.
- Perrottet, tony, The Naked Olympics: the true story of the Ancient Games, 2004.
- Singh, M.K., Indian Women and Sports, Rawat Publication, 1991.
- Toropove, Brandon., The Olympic for Beginners, 2008.
- Wallechineley, Davi, The Complete Book of the Olympic, 1992.

**B.P.E.S SEMESTER –II
PAPER – I
ANATOMY & PHYSIOLOGY**

Max. Marks: 60

External Marks: 40

Internal Marks: 20

Time: 3 hours

Unit-I

Meaning of anatomy, cell, structure, properties of living matter. The role of anatomy in physical education & sports anatomy of bones cartilage's, Names and location and functions of bones, kinds of bones, joints end their types, tissues, organs and system of body.

Unit-II

Annlomy of muscular system, structure of muscles and their kinds. Properties of muscles. Muscle work and, gue, anatomy of respiratory organs, tissue and palmary respiration, anatomy of heart, function of heart, heart bea stroke volume, cardiac output.

Unit-III

Anatomy of digestive organs (alimentary canal), structure and functions of excretory system, meaning of endocrine glands and structure of the following glands - pituitary glands, ingroid parathyroid, adunal glands.

Unit-IV

Effect of exercise and training on cardiovascular system.
o Effect of exercise and training on respiratory system.
o Effect of exercise and training on muscular system
o Physiological concept of physical fitness, warming up, conditioning and fatigue.

Ref.:-

1. Introduction to anatomy & physiology - Dr. Shemsher Singh.

2. Lawrence, Thomas Gordon; Your health and Safety, Har Schiver. Alices; Powers, Courts, Braco & World, inc. Douglas F; and Vorhana Levis J. New York. 1969.
3. Bauer. WAV. (Editor). TODAYS' Health Guide, American Medical Association, Revised Edition 1968.

B.P.E.S SEMESTER –II
PAPER – II
YOGA

Max. Marks: 60
External Marks: 40
Internal Marks: 20
Time: 3 hours

UNIT – I

- 1.1 Yoga-Meaning concept, Mis-conceptions about Yoga-Relationship with physical education.
- 1.2 Historical Background of yoga-yogic practices.

UNIT-II

- 2.1 Yoga as a discipline of life mode of living, cuits of yoga (only central ideas)
 - 2.1.1 Raj Yoga
 - 2.1.2 Bhakti Yoga
 - 2.1.3 Karm Yoga
 - 2.1.4 Gyna Yoga
- 2.2 Hatha yoga philosophy.

UNIT-III

- 3.1 Astanga Yoga with special reference to –
 - 3.1.1 Yamas
 - 3.1.2 Niyams
 - 3.1.3 Asanas
 - 3.1.4 Pranayams ; Types of Asanas and Pranayams.
- 3.2 Shat Karma-Personal hygiene of Yoga – Six purifactory methods of. yoga-Neti, Dhauti, Vasti, Nauli, Gajkarni, Kunja.

UNIT-IV

- 4.1 Bandhas, Mudras and Chakras of Yoga
- 4.2 Recent advances in Yoga Education; Yoga as a Science
- 5.1 The therapeutic values of Yogic practices
- 5.2 Corrective values of Yogic Practices

REFERENCES :

- Asanas & Pranayams – Swami Kuvalayananda.
- Yoga Personal Hygiene- Shir Yogendra
- Yogic Exercises by the Fit and the Ailing – S. Muzumdar
- Yogic Asanas for Health and Vigour – Dr. Role
- Hath Yoga : Goswami, S.S.

- Raj Yoga- Swami Vivekanand
- Bhakti Yoga – Swami Vivekanand.

**B.P.E.S SEMESTER –II
PAPER – III
KINESIOLOGY**

Max. Marks: 60
External Marks: 40
Internal Marks: 20
Time: 3 hours

UNIT- I

1.1 Introduction to Kinesiology

- 1.1.1 Definition
- 1.1.2 Objectives of Kinesiology
- 1.1.3 Role of Kinesiology in Physical education

1.2 Fundamental concepts of following terms with their application to the human body.

- 1.2.1 Axes and planes
- 1.2.2 Center of Gravity
- 1.2.3 Line of Gravity

UNIT- II

2.1 Anatomical and Physiological fundamentals

- 2.1.1 Classification of joints and muscles
- 2.1.2 Terminology of fundamental movements.
- 2.1.3 Types of Muscle contractions
- 2.1.4 Angle of Pull

2.2 Kinesiology of Joints

- 2.2.1 Two joints muscles
- 2.2.2 Roles in which muscles may act.

UNIT- III

3.1 Upper Extremity

- 3.1.1. Major characteristics of joints
- 3.1.2 Location and action of major muscles acting at the following joints
 - 3.1.2.1 Shoulder
 - 3.1.2.2 Elbow
 - 3.1.2.3 Wrist

3.2 Lower Extremity

- 3.2.1 Major characteristics of joints
- 3.2.2 Location and action of major muscles acting at the

following joints :

3.2.2.1 Hip

3.2.2.2 Knee

3.2.2.3 Ankle and Foot

UNIT- IV

4. Application of Mechanical Concepts

4.1 Motion

4.1.1 Definition

4.1.2 Newton's Laws of Motion

4.1.3 Application to sports activities

4.2 Force

4.2.1 Definition

4.2.2 Magnitude of force

4.2.3 Direction of application of force

4.2.4 Application to sports activities

4.3 Equilibrium

4.3.1 Definition

4.3.2 Major factors affecting equilibrium

4.3.3 Role of equilibrium in sports

4.4 Lever

4.4.1 Definition Lever

4.4.2 Types of Lever

4.4.3 Application of Human body

REFERENCES :

- Broer, M.R. Efficiency of Human movement (Philadelphia : W.B. Saunders Co., 1966)
- Bunn, John W. Scientific Principles of Coaching (Engle Wood Cliffs: N Prentice Hall Inc., 1966)
- Duvall, E.N. Kinesiology (Engle wood cliffs : N.J. Prentice Hall Incl. 1956)
- Rasch and Burke, Kinesiology and Applied Anatomy (Philadelphia : Lea and Fibger 1967)
- Scoot M.G. Analysis of Human Motion, New York.
- Wells, K.P. Kinesiology (Philadelphia : W.B. Saunders Co. 1966)
- Cooper, John M. and Glassgow, R.B. Kinesiology (St. Louis C. McSby Co., 1963)
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication in 2005)
- Uppal A.K. Lawrence Mamta MP Kinesiology (Friends publication India 2004).

B.P.E.S SEMESTER –II PAPER- IV Sports Nutrition

Max. Marks: 60

External Marks: 40

Internal Marks: 20

Time: 3 hours

Unit-I

- Concept of Nutrition, Sport Nutrition and Health
- Types and Sources of Nutrients
- Main function of Macro and Micro nutrients in health and sports
- Balanced diet

Unit-II

- Energy for sports performance and the role of carbohydrate, protein, fat and their sources.
- A factor affecting the energy needs in different categories of sports events.
- Sports supplements and their effect on performance.
- Nutritional requirements and allowances for sports person of different categories Competition nutrition and its management glycaemic index and sports nutrition

Unit-III

- Management of Hypertension atherosclerosis and dieters mellitus in sportsperson.
- Management of the female sportsperson
- Menarche and Menstruation
- Amenorrhea
- Anemia and Iron Supplementation
- Bone Health and Calcium Supplementation
- Eating Disorders

Unit-IV

Weight Control

- Basic principles of weight control
- Calorie concept of weight control
- Fat reduction and role of fat loss supplements
- Role of diet in weight control.

Reference Books:

1. Bean, A. (2001).
Sports Nutrition. Biddles Ltd, Guildford and Kings Lynn.
3. Zimmermann, M. (2007). Handbook of Nutrition, Saurab Printers Pvt Ltd.
4. Antoonio, J and Stout, J.R. (2001). Sports supplements. Lippincott Williams & Wilkins.