

THE UNIVERSITY OF NORTH BENGAL



**Syllabus of Four Year Under Graduate Program in Physical Education and Sports,
under the new curriculum and credit framework, 2022**

w.e.f.2023-2024

Total Credit: -160

***UG Certificate- 40 Credit (SEM-I & II)**

****UG Diploma – 82 Credit (SEM-III & IV)**

***** 3 Year Degree -124 Credit (SEM-V & VI)**

******4 Year UG Degree Honours -160 Credit (SEM-I to VIII)**

****** 4 Year UG Degree Honours with Research -160 Credit (SEM-I to VIII)**

University of North Bengal

4 Years Under Graduate Program in Physical Education and Sports

1st Semester

Course Code	Course Title	Course type	Credit	Marks
UPEDMAJ11001	History and Foundation of Physical Education and Sports	Major Course (MAJ)	4	75
UPEDMIN10001	Introduction of Physical Education and Sports	Minor Course (MIN)	4	75
PDMDC101	Fitness, Recreation and Sports Management (Other than Physical Education)	Multidisciplinary Courses (MDC)	3	75
	English - 1 [For BA Course] MIL / Alt.English - 1 [For Courses other than BA]	Ability Enhancement Courses (AEC)	2	50
UPEDSEC11001	Formal and Rythmic Activities	Skill Enhancement Courses (SEC)	3	75
	A - Environmental Education (EE) B - Understanding India (UI) / Digital Marketing C- Health & Wellness (Other than Physical Education & Sports)	Value Added Courses (VAC)	4	75
Total			20	425

2nd Semester

Course Code	Course Title	Course type	Credit	Marks
UPEDMAJ12002	Management of Physical Education and Sports	Major Course (MAJ)	4	75
UPEDMIN10001	Introduction of Physical Education and Sports	Minor Course (MIN)	4	75
		Multidisciplinary Courses (MDC)	3	75
	English - 1 [For Courses other than BA] MIL / Alt.English - 1 [For BA Course]	Ability Enhancement Courses (AEC)	2	50
UPEDSEC12002	Exercise and Sports for Elementary Students	Skill Enhancement Courses (SEC)	3	75
	A - Environmental Education (EE) B - Understanding India (UI) / Digital Marketing (DM) C - Health & Wellness (Other than Physical Education & Sports)	Value Added Courses (VAC)	4	75
Total			20	425

PHYSICAL EDUCATION AND SPORTS

SEMESTER 1

PAPER:	MAJOR
PAPER DESCRIPTION:	HISTORY AND FOUNDATION OF PHYSICAL EDUCATION AND SPORTS
PAPER CODE:	UPEDMAJ11001
PAPER TYPE:	THEORY (TH)
CREDITS:	04
CLASS HOURS:	04 HOURS PER WEEK
DURATION:	2.5 HOURS

COURSE OUTCOMES-

- 1) Understand the meaning, definitions, scope, Aim, and objective of Physical Education.*
- 2) Understand the Misconception and modern concept of Physical Education and need and importance of Physical Education.*
- 3) To understand Sociological and Philosophical factors that make foundation of Physical Education.*
- 4) To build up concept regarding Historical background and events of Physical Education and sports*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT-I: INTRODUCTION

- 1.1 Meaning, Definition & Scope of Physical Education and Sports.
- 1.2 Aim, Objectives, Need & Importance of Physical Education and Sports.
- 1.3 Misconceptions and Modern concept of Physical Education.
- 1.4 Career Opportunities of Physical Education & Sports, Physical Education as an Arts & Science.

UNIT-II: HISTORICAL DEVELOPMENT

- 2.1 Historical Development of Physical Education and Sports in India - Pre and Post Independence periods.

- 2.2 Contribution of Akhadas, Vyayamshalas and National Institutes of Physical Education in India.
- 2.3 Historical background and concept of Asian Games, Commonwealth Games, SAF Games and National Sports Scheme.
- 2.4 Contribution of Eminent Physical Educationists: J.B. Basedow, J.F. Gustmuth, H.C. Buck, James Buchanan, Rabindranath Tagore, Swami Vivekananda & National Sports Awards- Arjuna Award, Dronacharya Award, Dhyanchand Award, Maulana Abul Kalam Azad Trophy and Rashtriya Khel Protsahan Purushkar.

UNIT-III: OLYMPIC MOVEMENT

- 3.1 Ancient Olympic Games
- 3.2 Modern Olympic Games, Objectives, Motto, Flag, Emblem, Torch, Oath, Olympic medal, and Olympic Village, Opening and Closing Ceremony.
- 3.3 Olympic Movement in India.
- 3.4 Similarities and Dissimilarities between Ancient Olympic Games and Modern Olympic Games.

UNIT -IV: SOCIOLOGICAL AND PHILOSOPHICAL FOUNDATIONS OF PHYSICAL EDUCATION & SPORTS

- 4.1 Sociological Foundation- Meaning and definition of Sociology, Society and Socialization.
- 4.2 Role of games and sports in National and International integration, Ethics of Sports.
- 4.3 Culture, Customs and Tradition in Physical Education.
- 4.4 Introduction to School of Philosophies- Naturalism, Pragmatism, Realism & Idealism

SUGGESTED READING:

- 1. Graham, G. (2001) Teaching Children Physical Education: Becoming a Master Teacher. Human Kinetics, Champaign, Illinois, USA.
- 2. Kamlesh, M. L. & Singh, M. K. (2006) Physical Education (Naveen Publications).
- 3. Lau, S.K. (1999), Great Indian players, New Delhi, Sports Publication
- 4. Lumpkin, A. (2007) Introduction to Physical Education, Exercise Science and Sports Studies, McGraw Hill, New York, U.S.A.
- 5. Siedentop, D. (2004) Introduction to Physical Education, Fitness and Sport, McGraw Hill Companies Inc., New York, USA.
- 6. Shaffer, D.R. (2002) Developmental Psychology: Childhood and Adolescence. Thomson, Sydney, Australia

7. Shukla, (2000) Mother on Education, National Council of Teacher Education, New Delhi.
8. Singh, A. et al. (2000) Essentials of Physical Education, Kalyani Publishers, Ludhiana, Punjab.
9. Wuest, D.A. & C.A. Bucher (2006) Foundations of Physical Education, Exercise Science, and Sports. McGraw Hill Companies, Inc., New York, USA.
10. Sharma, N.P.(2009), Sports History, KSK Publisher & Distributors, New Delhi – 110002
11. Bhattacharyya, A.K. (2012), Dimensions of Physical Education: Principles, Foundations Interpretations, Classique Books, Kolkata-12

PRACTICAL GUIDELINES: N.A.

QUESTION PATTERN:

S.No	Questions To Be Answered	Out Of	Marks of each question	Total Marks
1.	4	6	3	4 x 3 = 12
2.	4	6	6	4 x 6 = 24
3.	2	4	12	2 x 12 = 24

PHYSICAL EDUCATION AND SPORTS
SEMESTER 2

PAPER-	MAJOR
PAPER DESCRIPTION:	MANAGEMENT OF PHYSICAL EDUCATION AND SPORTS
PAPER CODE:	UPEDMAJ12002
PAPER TYPE:	THEORY (TH)
CREDIT:	04
CLASS HOURS:	04 HOURS PER WEEK
DURATION:	2.5 HOURS

COURSE OUTCOMES-

- 1) *Know sports management and employ principles of strategic planning, and financial and human resource management.*
- 2) *Assess marketing needs and formulate short term and long term solutions.*
- 3) *Develop critical thinking in analysing sport management issues and in managerial planning and decision making.*
- 4) *Able to organize recreational camp and activities.*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT-I: INTRODUCTION

- 1.1 Meaning, Definition, Importance, Scope of Management of Physical Education and Sports.
- 1.2 Principles of Sports Management. Functions and purpose of Sports Management.
- 1.3 Management of Events, Store Room, Play Fields & Gymnasium in Physical Education and Sports.
- 1.4 Management of Indoor & Outdoor Activities.

UNIT-II: MANAGEMENT OF PHYSICAL EDUCATION & SPORTS PROGRAMS AND TOURNAMENTS

- 2.1 Management of Physical Education & Sports Programs in School, College, and University.
- 2.2 Concept of Planning in Sports Management and Factors affecting Planning.
- 2.3 Meaning, Definition, Importance and types of Tournaments and Procedure of Drawing Fixture, merits, and demerits of Knock-out, League, Combination, and challenge Tournaments.
- 2.4 Meaning, Aims, Objective and Management of intramural and extramural competitions.

UNIT-III: FINANCIAL MANAGEMENT

- 3.1 Financial Management in Physical Education and Sports in School, College, and University.
- 3.2 Meaning, Definition, Importance and criteria of good Budget in Physical Education and Sports.
- 3.3 Steps for preparing a good budget in Physical Education and Sports.
- 3.4 Sports Sponsorship: Meaning, Aim, Objective, Trends and Management process of Sports Sponsorship

UNIT-IV: LEADERSHIP IN PHYSICAL EDUCATION AND SPORTS

- 4.1 Meaning, Definition & Importance of Leadership.
- 4.2 Principles of Leadership Activities & Qualities of a good Leader in Physical Education & Sports.
- 4.3 Forms of Leadership (Autocratic, Laisser-faire, Democratic, Benevolent Dictator.
- 4.4 Development of organizational leadership performance

SUGGESTED READING:

- Nanda, S.M. Sports Management, Friend Publications, New Delhi.
- Paul, A. Sarirsikshay Management, Classic Publishers, Kolkata.
- Bucher, C. A. Administration of Physical Education and Athletic Programme. St. Louis: The C.V. Mosby Co.
- Broyles, F. J. & Robert, H. D. Administration of Sports, Athletic Programme: A Managerial Approach. New York: Prentice Hall Inc
- Pandey, L.K. (1977). Methods in Physical Education. Delhi: Metropolitan Book Depot.
- Sharma, V.M. & Tiwari, R.H.: (1979). Teaching Methods in Physical Education. Amaravati: Shakti Publication
- Kar, S. & Santra, D.C. (2018): Snatak Sarirs iksha Porichaya (Vol.-1), Santra Publication, Kolkata

PRACTICAL GUIDELINES: NIL

QUESTION PATTERN:

S.No	Questions To Be Answered	Out Of	Marks of each question	Total Marks
1.	4	6	3	$4 \times 3 = 12$
2.	4	6	6	$4 \times 6 = 24$
3.	2	4	12	$2 \times 12 = 24$

PHYSICAL EDUCATION AND SPORTS
SEMESTER 1 & 2

PAPER:	MINOR
PAPER DESCRIPTION:	INTRODUCTION OF PHYSICAL EDUCATION AND SPORTS
PAPER CODE:	UPEDMIN10001
PAPER TYPE:	THEORY (TH) + NON-LAB PRACTICAL (PNLB)
CREDITS:	3 + 1 = 4
CLASS HOURS:	05 HOURS PER WEEK
DURATION:	02 HOURS

COURSE OUTCOMES-

- 1) Understand the meaning, definitions, scope, Aim, and objective of Physical Education.*
- 2) Understand the Misconception and modern concept of Physical Education and need and importance of Physical Education.*
- 3) To understand Sociological and Philosophical factors that make foundation of Physical Education.*
- 4) To build up concept regarding Historical background and events of Physical Education and sports*

DETAILS OF SYLLABUS: TOTAL MARKS – 60 (THEORY: 40 PRACTICALS: 20)

THEORY

UNIT-I: INTRODUCTION

- 1.1 Meaning, Definition & Scope of Physical Education and Sports.
- 1.2 Aim, Objectives, Need & Importance of Physical Education and Sports.
- 1.3 Misconceptions and Modern concept of Physical Education.
- 1.4 Career Opportunities of Physical Education & Sports.

UNIT-II: HISTORICAL DEVELOPMENT

- 2.1 Historical Development of Physical Education and Sports in India - Pre and Post Independence periods.
- 2.2 Contribution of Akhadas, Vyayamshalas and National Institutes of Physical Education in India.

- 2.3 Historical background and concept of Ancient & Modern Olympic Games, Asian Games, Commonwealth Games and SAF Games and National Sports Scheme.
- 2.4 Contribution of Eminent Physical Educationists: H.C. Buck & James Buchanan National Sports Awards- Arjuna Award, Dronacharya Award & Dhyanchand Award.

UNIT -III: SOCIOLOGICAL AND PHILOSOPHICAL FOUNDATIONS OF PHYSICAL EDUCATION & SPORTS

- 3.1 Sociological Foundation- Meaning and definition of Sociology, Society and Socialization.
- 3.2 Role of games and sports in National and International integration, Ethics of Sports.
- 3.3 Culture, Customs and Tradition in Physical Education.
- 3.4 Introduction to School Philosophies- naturalism, pragmatism, realism, idealism

FIELD PRACTICAL

UNIT – IV FORMAL & RYTHEMIC ACTIVITIES

- 4.1 March Past - Fall In, Attention, stand at ease, stand easy, Eyes right, Eyes front, Right Turn, Left Turn, Half Right Turn, Half Left Turn, About Turn, Mark Time Mark, Forward March. Salute, Right and Left salute.
- 4.2 Calisthenics activities – With Apparatus (Any 2) & Without Apparatus (Any 2)

SUGGESTED READING:

1. Graham, G. (2001) Teaching Children Physical Education: Becoming a Master Teacher. Human Kinetics, Champaign, Illinois, USA.
2. Kamlesh, M. L. & Singh, M. K. (2006) Physical Education (Naveen Publications).
3. Lau, S.K. (1999), Great Indian players, New Delhi, Sports Publication
4. Lumpkin, A. (2007) Introduction to Physical Education, Exercise Science and Sports Studies, McGraw Hill, New York, U.S.A.
5. Siedentop, D. (2004) Introduction to Physical Education, Fitness and Sport, McGraw Hill Companies Inc., New York, USA.
6. Shaffer, D.R. (2002) Developmental Psychology: Childhood and Adolescence. Thomson, Sydney, Australia
7. Shukla, (2000) Mother on Education, National Council of Teacher Education, New Delhi.
8. Singh, A. et al. (2000) Essentials of Physical Education, Kalyani Publishers, Ludhiana, Punjab.

9. Wuest, D.A. & C.A. Bucher (2006) Foundations of Physical Education, Exercise Science, and Sports. McGraw Hill Companies, Inc., New York, USA.
10. Sharma, N.P.(2009), Sports History, KSK Publisher & Distributors, New Delhi – 110002
11. Bhattacharyya, A.K. (2012), Dimensions of Physical Education: Principles, Foundations Interpretations, Classique Books, Kolkata-12

PRACTICAL GUIDELINES: Evaluation Process will be made by External Examiner and Record Books to be prepared by the students

QUESTION PATTERN:

S.No	Questions To Be Answered	Out Of	Marks of each question	Total Marks
1.	5	8	1	$5 \times 1 = 5$
2.	3	5	5	$3 \times 5 = 15$
3.	2	4	10	$2 \times 10 = 20$

PHYSICAL EDUCATION AND SPORTS
SEMESTER 1/2

PAPER:	MULTI DISCIPLINARY COURSE
PAPER DESCRIPTION:	FITNESS, RECREATION AND SPORTS MANAGEMENT
PAPER CODE:	PDMDC101
PAPER TYPE:	THEORY (TH)
CREDITS:	03
CLASS HOURS:	3 HOURS PER WEEK
DURATION:	2.5 HOURS

COURSE OUTCOMES-

- 1) A variety of motor skills and abilities related to lifetime leisure activities*
- 2) Improved understanding of the importance of maintaining a healthy lifestyle*
- 3) Improved understanding of factors influencing fitness.*
- 4) Self-confidence and self-worth as they relate to physical education recreation programs.*
- 5) Know sports management and employ principles of strategic planning, and financial and human resource management.*
- 6) Develop critical thinking in analysing sport management issues and in managerial planning and decision making.*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT-I: INTRODUCTION TO FITNESS

- 1.1. Meaning, Definition, Types, and Importance of fitness
- 1.2. Concept of the components of health and performance/skill related physical fitness
- 1.3. Assessment and Maintenance techniques of health and skill related physical fitness components.
- 1.4. Factors influencing Fitness.

UNIT-II: RECREATION AND RECREATIONAL ACTIVITIES

- 2.1. Meaning, Definition, Importance & Types of Recreation.
- 2.2. Types of recreational activities in different age groups & Therapeutic aspects of recreational activities
- 2.3. Agencies providing recreational activities in our society.

2.4 Study of recreation as a social phenomenon.

UNIT-III: SPORTS MANAGEMENT

- 3.1. Meaning, Definition, Importance, Scope of Management of Physical Education and Sports.
- 3.2 Principles of Sports Management. Functions and purpose of Sports Management.
- 3.3 Concept of Planning for Management and Factors affecting Planning
- 3.4 Financial Management in Physical Education and Sports in School, College, and University.

SUGGESTED READING:

- Jensen C. and Naylor J. (2005). “Opportunities in Recreation and Leisure Sports” McGraw Hill. Publishers. New York.U.S.A.
- V.V. Hunt, “Recreation for the Handicapped” Prentice Hall inc., 1974
- Chelladurai. P (1999) “Human Resource Management in sport and Recreation”, Human kinetics.
- K. Chandrashekar “Sports Administration” ,VinekThaniKnelSahitya Kendra pub., (2004)
- Willgoose, C.E. (1979). “Curriculum in Physical Education” 3rd Ed. Englewood Cliffs.: N.J. Prentice Hall, Inc
- “Greenbelt Recreation Activity Guide-Fall 2018” (Aug 17, 2018), City of Greenbelt
- Mood Dale, Frank Musker, Judith Rink, (February 23, 2011), “Sports and Recreational Activities” McGraw-Hill Education; 15 edition, ISBN-10: 0078022487
- Nanda, S.M. Sports Management, Friend Publications, New Delhi.
- Paul, A. Sarirsikshay Management, Classic Publishers, Kolkata.
- Bucher, C. A. Administration of Physical Education and Athletic Programme. St. Louis: The C.V. Mosby Co.
- Broyles, F. J. & Robert, H. D. Administration of Sports, Athletic Programme: A Managerial Approach. New York: Prentice Hall Inc

PRACTICAL GUIDELINES: NIL

QUESTION PATTERN:

S.No	Questions To Be Answered	Out Of	Marks of each question	Total Marks
1.	4	6	3	4 x 3 = 12
2.	4	6	6	4 x 6 = 24
3.	2	4	12	2 x 12 = 24

PHYSICAL EDUCATION AND SPORTS
SEMESTER 1

PAPER:	SKILL ENHANCEMENT COURSE
PAPER DESCRIPTION:	FORMAL AND RYTHMIC ACTIVITIES
PAPER CODE:	UPEDSEC11001
PAPER TYPE:	NON-LAB PRACTICAL (PNLB)
CREDITS:	03
CLASS HOURS:	06 HOURS PER WEEK
DURATION:	NOT APPLICABLE

COURSE OUTCOMES-

- 1) Apply the knowledge in the field of physical education and movement activity.*
- 2) Analyse the practical knowledge during the practical situation.*
- 3) Appraise the effects during the training and practical sessions.*
- 4) Learn the rhythm and discipline through activity*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT I Marching- Fall In, Attention, stand at ease, stand easy, Eyes right, Eyes front, Right Turn, Left Turn, Half Right Turn, Half Left Turn, About Turn, Mark Time Mark, Forward March. Salute, Right and Left salute.

UNIT II Calisthenics activities – With Apparatus (Any 5 with minimum 3 different apparatus) & Without Apparatus (Any 5)

UNIT III Aerobics activities / Bratachari

SUGGESTED READING:

PRACTICAL GUIDELINES: Evaluation Process will be made by External Examiner and Record Books to be prepared by the students.

QUESTION PATTERN: NOT APPLICABLE (FULLY FIELD BASED PRACTICAL)

PHYSICAL EDUCATION AND SPORTS
SEMESTER 2

PAPER:	SKILL ENHANCEMENT COURSE
PAPER DESCRIPTION:	EXERCISE AND SPORTS FOR ELEMENTARY STUDENTS
PAPER CODE:	UPEDSEC12002
PAPER TYPE:	NON-LAB PRACTICAL (PNLB)
CREDITS:	03
CLASS HOURS:	06 HOURS PER WEEK
DURATION:	NOT APPLICABLE

COURSE OUTCOMES-

- 1. Organize exercise & sports for elementary school children.*
- 2. Develop self-confidence about nurturing elementary students.*
- 3. Implement the learning in nursery, kindergarten, play school and elementary school.*
- 4. Make own Play School in their area.*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT - I EXERCISE FOR ELEMENTARY STUDENTS

- 1.1 Rhymes Exercise
- 1.2 Mimicking Exercise
- 1.3 Partner Exercise

UNIT -II RECREATIONAL GAMES FOR ELEMENTARY STUDENTS

- 2.1. Recreational Games-Individual.
- 2.2 Recreational Games- Group
- 2.3 Recreational Games- with Teachers / Parents

UNIT - III SPORTS FOR ELEMENTARY STUDENTS

- 3.1 Fundamental Movement Sports
- 3.2 Low level Individual sports

3.3. Low Level Group sports

SUGGESTED READING:

PRACTICAL GUIDELINES: Evaluation Process will be made by External Examiner and Record Books to be prepared by the students.

QUESTION PATTERN: NOT APPLICABLE (FULLY FIELD BASED PRACTICAL)

PHYSICAL EDUCATION AND SPORTS

SEMESTER 1/2

PAPER:	VALUE ADDED COURSE
PAPER DESCRIPTION:	HEALTH & WELLNESS (ALL STUDENTS EXCEPT THOSE WHO HAVE PHYSICAL EDUCATION & SPORTS AS MAJOR AND MINOR)
PAPER CODE:	
PAPER TYPE:	THEORY
CREDITS:	04
CLASS HOURS:	04 HOURS PER WEEK
DURATION:	02 HOURS

COURSE OUTCOMES-

- 1) Understand the meaning, definitions, dimensions, and scope of health, fitness and wellness*
- 2) Insight into the causes of illness and the management of those ill-health through proper knowledge*
- 3) Gain knowledge about the nutrition, components of nutrition and their impact on health.*

DETAILS OF SYLLABUS:

TOTAL MARKS - 60

UNIT I: INTRODUCTION

- 1.1 Meaning, Definition, Aim and objectives and dimensions of Health and wellness.
- 1.2 Meaning, Definition, Aims, Objectives & Principles of Health Education.
- 1.3 Factors affecting health and wellness.
- 1.4 Health Agencies: World Health Organization (WHO) United Nation Educational Scientific & Cultural Organization (UNESCO) Integrated Child Development Services (ICDS) Ministry of Health & Family Welfare (MHFW)

UNIT II: NUTRITION AND WEIGHT MANAGEMENT

- 2.1 Meaning, Definition and Importance of Nutrition, food and effect of malnutrition on health.
- 2.2 Basic Nutrients: Protein, Carbohydrate, Fat, Mineral, Water & Vitamins.
- 2.3 Diet, Balance Diet, Factors affecting Diet, Athletic Diet, Mid-Day Meal.

- 2.4 Obesity – Concept, Problems, Causes, Prevention, Assessment and procedure of Weight Management.

UNIT III HYGIENE, PERSONAL HYGIENE, MENTAL HYGIENE & COMMUNITY HYGIENE

- 3.1 Meaning, Concept, and types of Hygiene.
- 3.2 Importance of Hygiene for healthy life, desirable hygienic habits and Importance of rest, sleep & exercise.
- 3.3 Personal Hygiene: - Care of Skin, Eye, Teeth, Ear, Nail, Nose and Hair.
- 3.4 Mental Hygiene, its importance and its practice procedure.

UNIT IV HEALTH PROBLEM IN INDIA

- 4.1 Causes, Prevention and Control of Communicable Diseases: Malaria, Dengue, Corona virus.
- 4.2 Causes, Prevention and Control Non-Communicable Diseases: Heart Attack, Asthma, arthritis.
- 4.3 Postural Deformities: Causes and corrective exercise of kyphosis, lordosis, Scoliosis, knock knees, Bow leg and Flat foot.
- 4.4 Problems associated with postural deformities

SUGGESTED READINGS:

- Turner, C.E. et al. School Health and Health Education, National Library of Australia.
- Bucher, Charles A. "Administration of Health and Physical Education Programme" C. V. Mosby Co. USA.
- Thakur, S. Krira Chikitsa, Paschimbanga Rajya Pustak Parsad.
- Hanlon, John J. "Principles of Public Health Administration" 2003.
- Nutrition Encyclopaedia, edited by Delores C.S. James, The Gale Group, Inc.
- Ghosh, B.N. A Treaties of Hygiene and Public Health, Scientific Publishing Co., Kolkata.
- Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.

QUESTION PATTERN: MCQ