

UNIVERSITY OF MUMBAI

No.UG/ 34 of 2015-16
 Mumbai-400 032
 29th July, 2015

The Principal,
 Nalanda Nritya Kala Mahavidyalaya,
 Plot No. 'A' 7/1, N.S. Road No.10,
 Juhu Vile Parle Development Scheme,
 Vile Parle (West),
MUMBAI-400 049.

Madam,

I am to invite your attention to the Ordinances, Regulations and Syllabi relating to the Master of Fine Arts degree course in Movement Science and to inform you that the recommendation made by the Board of Studies in Dance at its meeting held on 27th January, 2015 has been accepted by the Academic Council at its meeting held on 26th February, 2015 vide item No. 4.29 and subsequently approved by the Management Council at its meeting held on 28th May, 2015 vide item No.16 and that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 54 (1) and 55 (1) of the Maharashtra Universities Act, 1994 and the Ordinances 6155 and 6156 and Regulations 8824, 8825, 8826, 8827, 8828, and 8829 relating to the Master of Fine Arts degree course in Movement Science is introduced, which is available on the University's web site (www.mu.ac.in) and that the same has been brought into force with effect from the academic year 2015-16.

Yours faithfully,

Sd/-
 REGISTRAR

A.C/4.29/26/02/2015
M.C/16/28.05.2015

No. UG/34-A of 2015-16

MUMBAI-400 032

29th July 2015

Copy forwarded with compliments for information to:-

- 1) The Dean, Faculty of Fine Arts,
- 2) The Chairperson, Ad-hoc Board of Studies in Dance,
- 3) The Director, Board of Colleges and University Development,
- 4) The Controller of Examinations,
- 5) The Co-Ordinator, University Computerization Centre.

[Handwritten Signature]
 REGISTRAR

-- PTO

AC 26/2/2015

Item No. 4.29

UNIVERSITY OF MUMBAI



Ordinances and Regulations and Syllabus

Program: Master of Fine Arts

Course: Movement Science-MOV.SCI.

Self financing course

(Introduced with effect from the Academic year 2015–2016)

MASTER OF FINE ARTS – MOVEMENT SCIENCE – MOV. SCI.

This is a self financing course

Duration – Two academic years (Four terms)

Total Marks for the Degree – 1000.

M. M. Sc. Part I – 500 marks

M. M. Sc. Part II – 500 marks

ELIGIBILITY FOR ADMISSION

- B.F.A. – B.P.A. (Dance or M.F.A. – M.P.A. (Dance)
- B.P.T. (Bachelor of Physio Therapy)
- B.O.T. (Bachelor of Occupational Therapy)
- Bachelor of Drama / Theatre Art, Master of Drama / Theatre Art.
- M.B.B.S.
- B.H.M.S.
- B.A.M.S.
- B. U. M. S.
- B. P. Ed.
- Graduate of Physical Education
- Post Graduate Diploma in Dance and Fitness (University of Mumbai), can be admitted directly to Part II.
- Graduate of any faculty and a recognised Diploma / Certificate in Fitness, Nutrition, Exercise Science or Diploma in Yoga from a recognised institution **and** minimum three years experience as a teacher / trainer in the subject of fitness.

CONDITIONS FOR AFFILIATION

1. The applicant college must be permanently affiliated to the University of Mumbai and recognised under S 2 (b) and 12 (f) by the U.G.C.
2. The applicant college must be recognised by the University of Mumbai to teach graduate and post-graduate courses in either Dance or Yoga or both or a co-related discipline.
3. The applicant college must be recognised to register students for the Ph.D. degree of the University of Mumbai.
4. The applicant college must have the following facilities:
 - a) Clear space admeasuring approximately 2000 sq. ft. in its own premises, Specially designated for its Dept. / Institute of Movement Science.

- b) The college must have equipment and apparatuses required for running a fitness and wellness Centre.
- c) The applicant college must have a suitably equipped library of books as well as audio-video discs.
- d) The applicant college must have facility for an audio-video recording and editing centre to prepare learning aids and packages.

SCOPE AND AIMS OF THE COURSE – Mov. Sci.

Taking human movement or motion as the foundation upon which the fast developing discipline of Movement Science is built the course is aimed at:

Aims:

- a) Life time fitness and wellness suitable for all age groups of the human society.
- b) Performance enhancement of the human body creating heightened level of endurance.
- c) Correction of physical and psychological impairment.
- d) Rehabilitation.
- e) Facilitation of healthy and meaningful ageing through motor function and cognition.
- f) Nutrition for fitness and optimisation of human activity.
- g) Inculcating balance, stability and harmony in physical and mental activities.
- h) Be a very important and meaningful adjunct to stress Management.

Scope:

- a) The scope of this course is cross disciplinary as well as inter-disciplinary. It encompasses the intrinsic elements from various ancient and traditional Indian disciplines like Dance, Yoga, Kalaripayattu and other martial arts, and the modern. Scientifically created and nurtured system of Kinesiology.
- b) These can be termed as sub-disciplines which nevertheless, have their individual specialised existence and significance and go on to create the holistic discipline of **Movement Science** – an integrated and meaningful whole that has given rise to purposive human movement as its central focus.
- c) The course explores inter alia the intrinsic relationship of these sub-disciplines with each other.
- d) The course places an emphasis on the nature and meaning of this study as an adjunct to the matrix of education, culture and society.
- e) **Most importantly the course is not designed as an alternative to surgical, medical or therapeutic solutions in conditions requiring immediate and urgent treatment.**
- f) The course is designed as a long term follow up to maintain a uniform state of wellness after the medical condition.

- g) The course very forcefully projects the necessity to maintain human wellness and fitness by prescribing practical regime to prevent the wasteful conditions arising out of the modern fast paced life-style – both physically and psychologically.
- h) The course prescribes preventive measures that an ordinary human being should incorporate in daily life to lead a healthy and trouble free existence.
- i) A very special emphasis in the course is on the debilitating consequences of ageing in which physical activities are severally challenged.
The course has a sizeable content devoted, to Ageing, its problems and solutions.
- j) The course has a well planned foundation of the principles of ‘Exercise Science’ which equips the student with scientific knowledge to assess the various problems delineated above and find solutions through exercise and movement regime.
- k) The course aims at creating scientifically trained efficient trainers whose chief concern would be to improve the life-style of the people at large and contribute significantly to the well being of the society.

MAJOR SUBJECTS

1. Human Anatomy and its various systems, with a special emphasis on the musculo-skeletal system and human physiology.
2. Mechanics of human movements: -
 - a) Physiological basis of human movement.
 - b) Analysis of human motion / mobility.
 - c) Bio-mechanics – relationship between skeletal, muscular and neurological structures and functions in the production of movement and optimisation of performance.
Neuro-mechanics of human movement.
3. Kinesiology
 - a) Human Kinetics.
 - b) Nervous system as basis of the human movement.
 - c) Trunk
 - 1) – head, neck, shoulder, thorax which includes chest, sides, back.
 - d) Upper extremity
 - 2) - upper arm, elbow, forearm, wrist, hand.
 - e) Lower extremity
 - hip joint, thigh, knee, shank, ankle, foot.
 - f) Spinal Column and pelvic girdle.
 - g) Mechanics of respiration.

4. Skill Acquisition

- a) Motor control – learning and development.
- b) Neuro muscular control of perceptual motor skills.

5. Fitness and Physical Activity

- a) Life time fitness and wellness – an age wise approach.
- b) Performance enhancement and creating heightened level of endurance.
- c) Nutrition for fitness and optimisation of human effort.

6. Ageing

Assessment and special considerations for fitness and exercise prescription in maintenance of ADL, balance, prevention of falls and other age related deficits and disorders.

7. Rehabilitation

- a) Correction of physical and psychological impairment.
- b) Rehabilitation and functional recovery.
- c) Exercise regime after a clinical or medical episode / condition.

8. Exercise specification for healthy living geared to age levels

- a) Physiology of exercise.
- b) Therapeutic exercises.
- c) Strength training and conditioning by toning of the body.
- d) Stress management.

O. 6155 Title of Course: **Master of Fine Arts – Movement Science – Mov. Sci.**

This is a Self-financing Course

O. 6156 Eligibility for Admission

- B.F.A. – B.P.A. (Dance or M.F.A. – M.P.A. (Dance)
- B.P.T. (Bachelor of Physio Therapy)
- B.O.T. (Bachelor of Occupational Therapy)
- Bachelor of Drama / Theatre Art, Master of Drama / Theatre Art.
- M.B.B.S.
- B.H.M.S.
- B.A.M.S.
- B. U. M. S.
- B. P. Ed.
- Graduate of Physical Education
- Post Graduate Diploma in Dance and Fitness (University of Mumbai), can be admitted directly to Part II.
- Graduate of any faculty and a recognised Diploma / Certificate in Fitness, Nutrition, Exercise Science or Diploma in Yoga from a recognised institution **and** minimum three years experience as a teacher / trainer in the subject of fitness.

R. 8824 Intake Capacity – 20 students per year

R. 8825 Fee Structure – for one academic year

Sr. No.	Particulars	Amount
1.	Tuition Fees	28000
2.	Admission Fees	1045
3.	University share	640
4.	Registration Fees	1025
5.	Library Fees	3000
6.	Gym Fees	6000
7.	Examination Fees	1260
8.	Course Fees	3030
	Total	44000

R. 8826 Duration of Course – Two academic years or four semesters

R.8827 Attendance

On each working day:-

Practicals: 2 hours

Theory: 1 hour

R. 8828 Standard of Passing (Scheme of Examination)

To pass examination for each of the Part I and Part II a candidate must obtain 40 per cent of the full marks in each paper: 50 per cent of the full marks in each practical, dissertation and viva-voce, where prescribed, and 50 per cent of the aggregate marks obtainable in each part.

Those of the successful candidates who obtained 50 per cent of the total marks obtainable in Part I and Part II examinations taken together will be placed in the Second Class, those who obtained 60 per cent of the total marks will be placed in the First Class and those who obtain 70 per cent or more marks will be declared to have passed the examination in the First Class with distinction.

A candidate, who has failed at the M.F.A. Part I or Part II examination, but has secured, 50 per cent of the total marks in the theory papers will, at his / her option, be exempted from appearing in the theory papers at a subsequent examination, provided he / she has obtained minimum passing marks in each of the theory papers. Similarly a candidate passing in each of the practicals with 50 per cent of the marks will, at his / her option, be exempted from appearing in the practicals at a subsequent examination.

Further, candidates appearing with exemption in theory papers / practicals will not be awarded a class.

R. 8829 Qualifications of the teachers

M.F.A. – P.A. (Dance) from a recognised university, M.P.T. from a recognised university, M.O.T. from a recognised university, M.D. (Medicine), M.D. in any alternative discipline e.g. Homeopathy, Ayurveda, Unani. Diploma / Certificate in Yoga from a recognised university.

TWO YEAR POST GRADUATE DEGREE AT THE FACULTY OF FINE ARTS

M.F.A. – MOVEMENT SCIENCE

TOTAL MARKS - 1000

PART I

Total marks - 500

Paper 1

: 100 marks – 3 hours

INTRODUCTION TO MOVEMENT SCIENCE –

Its meaning and relevance in the contemporary society.

- Impact of Ecological changes and space curtailment – changed way of life in the modern society.
- Movement as a Process of Integration from childhood to youth to adulthood.
- The concept of Effort Movement and its four components:
Direction, Strength (thrust), Speed, Progression.
- The Energy component in Movement.
- Breath and Movement / Effort.
- The psychomotor domain including Skills and Fitness.
- Psychological basis of human movement.

Meaning of skill, specific skill and value of skill.

History of physical, emotional and spiritual fitness in India from the ancient times.

Physiology of human movement.

Bibliography -

- 1 Fitness First Through Movement and Diet by Dr. B. H. Barrada ; A.Wheaton & Co.Ltd ,London;1988
- 2 Drama and Movement in Therapy by Audrey G. Wethered ; Macdonald & Evans Ltd, London;1973
- 3 Dance Movement Therapy by Bonnie Meekums , London; Sage Publications ,London ;2002
- 4 Athletic Ability and The Anatomy of Motion by Rolf Wirhed; Wolfe Medical Publication, England ;1988.
- 5 A Handbook For Dance Education-2e by Valerie Preston-Dunlop ,Longman,London;1988
- 6 Notes From A Course in Correctives by Irmgard Bartenleff ; DNBF,Newyork;1977
- 7 Choreutics by Rudolf Labon ;Macdonald & Evans,London;1966

- 8 Relaxation in Movement by Dora Bullivant; Continua Productions ,London,
- 9 Observation ,Analysis and Recording of Movement by Irene K.Glaister ,London
- 10 Man & Movement :Principles of Physical Education
- 11 Perpetual Motion by Otis Stuart
- 12 Mime :The Theory and Practice of Expressive Gesture by Joan Lawson ,A Dance Horizons Republications ,1957
- 13 Study Guide For Elementary Labanotation by Peggy Hackney ,Sarah Manno and Muriel Topaz ;DNBP ,New York,1977.

Paper 2

HUMAN ANATOMY

: 100 marks – 3 hours

Theory – 50 marks

Practical- 50 marks

This subject provides knowledge of the structure of the human body which is an essential foundation for understand the movement science. The topographical and functional anatomy of the limbs and thorax is discussed with particular attention paid to the muscles, bones and joints of the regions.

9. Human Anatomy and Physiology of various systems.
- Regional Anatomy-
 - h) Trunk
 - 3) Head and neck, abdomen and thorax.
 - i) Upper extremity
 - 4) Shoulder girdle, upper arm, elbow, forearm, wrist, hand.
 - j) Lower extremity
 - 3) Hip joint, thigh, knee, shank, ankle, foot.
 - k) Spinal Column and pelvic girdle.
 - Physiology of following systems
 - a) Cardiovascular System
 - b) Respiratory System
 - c) Musculoskeletal System.
 - d) Nerve Muscle physiology.

Bibliography -

- 1 Anatomy : A Regional Atlas of The Human Body-3E by Carmine D.Clementee ,Urban & Schwarzenberg ,Usa ;1975
- 2 Musculoskeletal Assessment :Joint Range of Motion and Manual Muscle Strength by Hazel M. Clarkson and Gail B. Gilewich ;Williams and Wilkins ,USA ;1989
- 3 Gray; S Anatomy, Descriptive and Surgical by Henry Gray ,Courage Books ,Philadelphia ;1974.
- 4 Brain 'S Clinical Neurology by Sir Roger Bannister ,Elbs;Britian ,1984.
- 5 Textbook of Human Neuroanatomy by Inderbir Singh ;Jaypee Brothers ,Newdelhi ;2006.

- 6 B.D. Chaurasia's Human Anatomy. Vol. I ,II ,III by Krishna Garg ;Cbs Publishers ,New Delhi ;2014
 7 The Complete Human Body :The Definitive Visual Guide by Dr.Alice Roberts ,D K,London;
 8 Dance Anatomy :Your Illustrated Guide To Improving Flexibility ,Muscular Strength, and Tone by Jacqui Greene Haas ,Human Kinetics ,United States ,2010.

Paper 3

: 100 marks

SCIENCE OF BODY MOVEMENTS

Theory – 50 marks 2 hours

Practical- 50 marks

Biomechanics involves the study of basic concepts of human movement, and application of various bio mechanical principles in the evaluation and treatment of disorders of Musculo skeletal system. The subject explains the various quantitative methods of movement. Mechanical principles of various treatment methods are studied. Study of posture and gait are also included. In addition, the subject also contains the principles and effects of exercise as a therapeutic modality and techniques for restoring physical functions.

- i) Introduction
- ii) Motor control
- iii) Normal and altered mechanics of the human movement –
 - Biomechanics of vertebral function
 - Biomechanics of peripheral joints
 - Analysis of posture and gait
 - Functional Analysis of body movements.
 - Functional Kinesiology
- iv) Introduction to exercise therapy –
- e) Definition of strength, power & work, endurance, muscle actions.
- f) Physiological adaptation to training: Strength & Power, Endurance.
- g) Types of exercises.
 - Free exercise
 - Active Assisted Exercise
 - Assisted-Resisted Exercise
 - Resisted Exercise
 - Types of resisted exercises: Manual and Mechanical resistance exercise, Isometric exercise,
 - Dynamic exercise: Concentric and Eccentric, Dynamic exercise,Isokinetic exercise, Open-Chain and Closed-Chain exercise.
- h) Functional Re-education -Lying to sitting: Activities on the Mat/Bed, Movement and stability at floor level; Sitting activities and gait;
- i) Lower limb and Upper limb activities.
- j) Aerobic Exercise
- k) Stretching
- l) Strength training and conditioning.
- m) Stress management – Relaxation techniques.

Bibliography -

- 1 Physiology of the joints - 6 e Vol I, II, III by Kappandji AI. ; Churchill Livingstone, 2010.

- 2 Joint structure and function: A comprehensive analysis – 5e by Norkin C, Levangie P. ; F. A. Davis Company, 2011.
- 3 Clinical Kinesiology for Physical Therapist Assistants by L.S.Lippert ;Jaypee Brothers Medical Publishers ,New Delhi;2002.
- 4 Kinesiology:Scientific Basis of Human Motion by Katherine F.Wells ;W.B. Saunders, Philadelphia ;1966
- 5 Dance Anatomy and Kinesiology :Principles and Exercises For Improving Technique and Avoiding Common Injuries by Karen Clippinger;Human Kinectics ,United States,2007.

Paper 4

: 100 marks

DANCE

Theory – 50 marks 2 hours

Practical- 50 marks

What is Dance – Its ancient shastric base in India, Division of the human body into major, minor and ancillary limbs according to dance technique – The nritya and nritya components of dance – The four abhinayas – aangika, saattvika, vaachika and aahaarya with a special emphasis on aangika as per the naatyashastric tradition – Dance as movement and act of communication – Dance as a psychological phenomenon to express human emotions and reactions to internal and external stimulation – Body language of Indian dance – Dance as a major basis for balance, equilibrium and harmony in human movement - Good posture – Aesthetic approach to human movement through dance – Relevance of ‘taala’ (rhythm) in Indian Cosmology and its relevance to human life and movement – Dance as a vehicle to express joy of living.

Bibliography –

- 1 Natyasastra: Ascribed To Bharata-Muni ,Vol-1 (Chapters I-Xxvii)-Text (Edited With An Introduction and Various Readings) by Manomohan Ghosh ;Chowkhamba Sanskrit Series office ,Varanasi,2009.
- 2 Natyasastra: Ascribed To Bharata-Muni ,Vol-Ii (Chapters Xxviii-Xxxvi)-Text (The Original Sanskrit Text Edited With Introduction and Various Readings From Mss and Printed Texts) by Manomohan Ghosh ;Chowkhamba Sanskrit Series office ,Varanasi,2009.
- 3 Natyasastra : A Treatise On Ancient Indian Dramaturgy and Histrionics ,Vol-I (Chapters I-Xxvii)-Translation(Completely Translated For The First Time From The Original Sanskrit With A An Introduction Various Notes and Index) by Manomohan Ghosh ;Chowkhamba Sanskrit Series office ,Varanasi,2007.
- 4 Natyasastra : A Treatise On Ancient Indian Dramaturgy and Histrionics ,Vol-I (Chapters Xxviii-Xxxvi)-Translation(Completely Translated For The First Time From The Original Sanskrit With An Introduction and Various Notes) by Manmohan Ghosh ;Chowkhamba Sanskrit Series office ,Varanasi ,2007.
- 5 Nandikesvara 'S Abhinayadarpanam :A Manual of Gesture and Posture Used In Ancient Indian Dance and Drama by Manomohan Ghosh ; Manisha Granthalaya Pvt. Ltd ,Calcutta ,1997.
- 6 Abhinayadarpanam of Nandikesvara : English Translation With Word To Word Meanings ,Tika and Comments For Each Sloka Or A Group of Slokas by P.S.R. Appa Rao ; A Nityamala Publication ,Hyderabad ,1997.

- 7 Dance Gestures (Mirror of Expressions) Sanskrit Text With English Translation of Nandikesvara'S Abhinayadarpanam by P.Ramachandrasekhar ;Giri Trading Agency Pvt. Ltd. ,Mumbai ,2007.
- 8 Handbook of Indian Classical Dance Terminology by Dr.Kanak Rele ;Nalanda Dance Research Centre ,Mumbai ,1992
- 9 Bhaava Niroopanna by Dr.Kanak Rele ;Nalanda Dance Research Centre ,Mumbai , 2009.

Paper 5

YOGA

: 100 marks – 3 hours

Theory – 50 marks - 2 hours

- 1) Introduction and philosophical understanding of Yoga.
- 2) Review of important Classical Literature.
- 3) Fundamental principles and concepts of Yogic Science.
- 4) The scientific understanding of Yoga.
- 5) Principles of Yoga Therapy.

Practical - 50 marks

1. Shavasana
2. Ardhalasana (one leg / both leg)
3. Uttana padasana
4. Pawana muktasana (ardha / purna)
5. Naukasana (supine / prone)
6. Viparitarani
7. Sarvangasana
8. Matsyasana
9. Halasana
10. Bhujangasana
11. Ardha salabhasana
12. Shalabhasana
13. Dhanurasana
14. Makarasana
15. Vakrasana
16. Janushirasana
17. Vajrasana
18. Ustrasana
19. Yoga mudra
20. Parvatasana
21. Akarna dhanurasana
22. Chakrasana (lateral)
23. Vrikshasana
24. Tadasana

Meditative pose

1. Ardha padmasana
2. Padmasana
3. Swastikasana

Other practices

1. Simha asana
2. Brahma Mudra
3. Uddiyana Bandha

Pranayams

1. Anuloma Viloma
2. Ujjayi

Shloka

1. Pranava japa
2. Swasti mantra
3. Om stavan

Bibliography –

- 1 Swara Yoga :The Trantric Science of Brain Breathing by Swami Muktibodhananda ,Yoga Publications ,Bihar;2006.
- 2 Asanas by Swami Kuvalayananda ,Kaivalyadhama ,Lonavala ,1993.
- 3 The Complete Book of Yoga :Harmony of Body and Mind by Sri Ananda ,Orient Paperbacks ,Delhi ;1993.
- 4 Yoga For Every Athlete :Secrets of An Olympic Coach by Aladar Kogler ,Jaico Publication House,Mumbai ;1999
- 5 The Book of Yoga :Bringing The Body ,Mind and Spirit Into Balance and Harmony by Christina Brown ,Parragon Publishing ,Uk ,2002.
- 6 Stretch Your Limbs For Balance :Yoga For Long and Healthy Living by Elise Browning Miller and Carol Blackman ,New Age Books ;New Delhi,2005.
- 7 Essence of Pranayama by Shri Krishna ;Ishwardas Chunilal Yogic Health Centre ,Mumbai;1966
- 8 Pranayama by Swami Kuvalayananda ;Kaivalyadhama ,Lonavala ,1966.
- 9 Yogic Pranayama :Breathing For Long Life and Good Health by Dr.K.S.Joshi ,Orient Paperbacks ,Delhi;2006
- 10 The Yoga Bible :Definitive Guide To Yoga Postures by Christina Brown ;Octopus Publishing Group Ltd.London,2002
- 11 Healing Yoga :A Practical Approach To Healing Common Ailments With Yoga by Stella Weller,Readers Digest ,Mumbai.
- 12 Notes On Structure and Functions of Human Body and Effects of Yogic Practices On It by I.C. Yogic Health Centre ,1988.

- 13 Ayurvediya Manas Vijnana :A Treatise On Indian Psychology ,Psychiatry and Psychosomatics
(In Hindi) by R.H.Singh ,Chaukhamba Amarabharati Prakashan ,Varanasi;1986
- 14 Tridosh Tatva Vimarsh (In Hindi) by R.Pathak ,Sri Bhagnath Ayurveda Bhavan Ltd
,Kolkatta;1981.
- 15 Artistic Form and Yoga In The Sacred Images of India by Heinrich Zimmer,Oxford University
Press ,Bombay;1984.
- 16 Surya Namaskar:A Technique of Solar Vitalization by Swami Satyananda Saraswati ,Yogi Trust
Press Publications ,Bihar ;2004.
- 17 Asana - Why and How by Shri. O.P. Tiwari.
- 18 Scientific Survey of the Yogic poses by Swami Kuvalayananda ,Kaivalyadhama.
- 21 Patanjala Yoga Sutra by Dr. P. V. Karambelkar.
- 22 Ashtanga Yoga of Saint Charandas by Shri. O.P. Tiwari.
- 23 Hatha Pradeepika of Swatmarama by Swami Digambarji and Raghunathshastri Kokaje.
- 24 Yogic Therapy by Swami Kuvalayananda and Dr. Vinekar.
- 25 Yoga and Mental Health by Prof. R. S. Bhogal.
- 26 Notes On Structure and Functions of Human Body and Effects by Dr. Shrikrishna.

PART II
Total marks – 500

Theory

Paper 1

: 100 marks – 3 hours

HEALTH, FITNESS, GROWTH AND HUMAN PERFORMANCE

Theory – 50 marks 2 hours Practical- 50 marks

- **Health:** Disintegrating factors:
 - i. Modern emphasis on intellectual achievement as against physical achievements.
 - ii. Ill effects of technological advances resulting in automation and mechanisation, high standard of living, sedentary life style etc.
 - iii. Stress and its Effects

- **Hypo Kinetic Disorders:**

Fitness: i. Cardio-respiratory fitness
 ii. Muscular strength and endurance
 iii. Flexibility
 iv. Body composition
 and their relevance to healthy life.
 and their effect on various systems in the human body e.g. Cardio-respiratory system, Circulatory system, Respiratory system.

- **Ageing:**
 - i. Its impact on the human body and psychology.
 - ii. Facilitation of healthy and meaningful ageing through motor functions and cognition.

Bibliography –

- 1 You and Your Health .Vol I , II , III by Harold Shyock,Pacific Press Publication,Usa ;1979
- 2 The Thinking Body:A Study of The Balancing Forces of Dynamic Man by Mabel Elsworth Todd ,Newyork ;1937.
- 3 The Truth About Chronic Pain: Patience and Professional On How To Face It,Understand It,Overcome It by Arthue Rosenfield,Basic Books ,Newyork ;2003
- 4 Knee Pain :The Self Help Guide by John Garrett & Bob Reznik ;Health Harmony ,B.Jain Publishers ,New Delhi ;2005.

- 5 Why We Hurt :A Complete Physical and Spiritual Guide To Healing Your Chronic Pain by Dr .Greg Fors
,Llewellyn Publications ,Minnesota ;2007.
- 6 The Immune Power Personality :7 Traits You Can Develop To Stay Healthy by Henry Dreher ;A Dutton
Book ,New York;1995.
- 7 Nutrition :Proceedings of The Seminar Held Under The Auspices of Sir Hurkisondas Nurrotumdas Hospital
Mrs & Tmrs ,Bombay ;1976

Paper 2

: 50 marks – 2 hours

BIO – MECHANICS OF HUMAN MOVEMENT

- Classification of Movements – support, equilibrium, centre of gravity and its effect on movements.
- Nutrition for healthy life.
- Exercise and its benefits to the various parts and systems of the body.
- Principles of Kalaripayattu and its healing touch (massage).

Exercise Prescription: -

- | | |
|--------|--|
| Step 1 | Medical Clearance |
| Step 2 | Goal Identification |
| Step 3 | Cardio-respiratory fitness evaluation |
| Step 4 | Selection of training style and exercise type (dance / yoga / kalaripayattu) |
| Step 5 | Selecting training frequency |
| Step 6 | Selecting training intensity |
| Step 7 | Selecting duration for training |
| Step 8 | Periodic evaluation |

Bibliography –

- 1 Healing Back: A Practical Approach To Healing Common Back Ailments by Readers Digest
,Stella Weller,Mumbai;2008.
- 2 A Complete Guide To Massage by Susan Mamford ;Hamlyn,London ,1995.
- 3 Tidy Massage and Remedial Exercises in Medical and Surgical Conditions by J.O.Wale ,John
Wright & Sons ,Newyork;1968
- 4 Backache ,Arthritis ,Spondylits ,Osteoarthritis and Other Pains :Treatment ,Precautions and
Exercise Regimen To Keep The Related Pains Away by Rajeev Sharma ,Manoj Publications
,Delhi,2006.
- 5 Kalarippayattu :The Complete Guide To Kerala'S Ancient Art Form by C.T.S Nair ,Westland
Books ,Chennai;2007.
- 6 Kalarippayattu by P.Balakrishnan ,Poorna Publicaitons ,Kerala;1994.
- 7 Meyppattu (Kalarippayattu) (In Malayalam) by S.R.D.Prasad ,Kerala Folklore Academy
,Kerala ;2012.

Paper 3**Practical**

150 marks

CREATING EXERCISE PROGRAMMES LEADING TO HUMAN WELLNESS AND FITNESS:

Preparation Time – 1 hour

Written Submission 75 marks

Demonstration 75 marks

Duration – 30 minutes

Utilising the movements from

- i) Exercise Therapy,
- ii) Dance,
- iii) Yoga,
- iv) Kalari payettu,
and
- v) Nutrition.

Students will be provided with a hypothetical case with medical clearance depicting any of the impairments or problems that they have learnt during the course.

The students will be given **one hour** for preparation and designing rehabilitation programme in terms of exercises selected from physio-therapy, dance, yoga, Kalaripayettu or combination from all or selected disciplines and nutrition.

1. Written submission : 75 marks
 - i. Problem identification in terms of human anatomy.
 - ii. System evaluation.
 - iii. Selection of style and exercise type giving reasons.
 - iv. Selecting training frequency and intensity suitable for the affected part / parts of the body giving reason for the same.
 - v. Selecting duration for the training.
 - vi. Prescribing nutrition and diet programme giving reasons.

: 75 marks
2. Demonstration of the selected exercises by the candidate for certain aspects of the rehabilitation process, the candidate can make use of tools and other aids during demonstration.
The candidate can also use another student volunteer only as a model for identification of area and progression of exercise programme.

Paper 4**RESEARCH PROJECT**

: 200 marks

Division of marks

- **Dissertation – 150 marks**
- **Viva voce on the dissertation - 50 marks**