

**Tamil Nadu Physical Education and Sports
University**

Chennai – 6

Name of the Course	Certificate in Aerobic Instructor
Educational Qualification	10th Passed
Stream	Directorate of Distance Education
Duration	Six Month Course

**Tamil Nadu Physical Education and Sports University
Chennai-6**

Director of Distance Education

Certificate in Aerobic Instructor			
Paper Code	Name of the Subject	Pass	Total
1	Exercise programme Design Muscles energy system and Injury	50	100
2	Practical	50	100
3	Practical	50	100

PAPER-I - EXERCISE PROGRAMME DESIGN MUSCLES ENERGY SYSTEM AND INJURY

UNIT-1

Music –Understanding – Cueing - Floor – Shoes — Stepper — Uses-Warm up - Stretching — Low and High intensity Exercise – Cool down- Body Conditioning- Flexibility-Common injuries.

UNIT -II

Muscles of upper Body –: Muscles of Lower Body Origin - insertion – action.

UNIT III

Cardio respiratory System – Heart rate - Resting H.R. maximal heart rate – Target Heart rate – Vo₂ max – Radial Pulse – Carotid pulse .

UNIT IV

Energy System & Nutrition ATP – PC System – Anaerobic metabolism – Aerobic metabolism – Fat metabolism – Diet – need – importance.

UNIT V

Aerobics and women – During menstruation – Pregnancy – Prenatal – Postnatal.

References:

- 1 Kathryn Lutgen et al. Kinesiology (Scientific Basis of Human Motion). Brown and Benchmark, 1992.
- 2 Essentials of Exercise Physiology : McArdle, WD, Katch, VL 2nd Edn., Lippincott Williams and Willkins (2000).
- 3 Exercise Physiology – Human Bioenergetics and its Application, Brooks, GA, Fahey, TD, White, TP. Mayfield Publishing Company (1996).
- 4 Perspectives in Nutrition (6th ed.) by Wardlaw
- 5 Nutrition for sport and exercise (2nd ed.,) by Berning and Steen Morgan and King:

PRACTICALS

Practical-I

Floor Aerobics
Marching
Step touch
L-step
V-step
Diamond
Knee lift
Touch out
Grape vine
Turn step
Cha-Cha
A -step-
Arm Variations
Music Tempo Variations.

Practical – II

Step Aerobics
Marching
Up and down
V-step
L-step
Straddle
Cross over
Turn step
Knee lift
Hop
Jump
Run Run
Arm Variations
Music Tempo Variations.
