[LP 1019] OCTOBER 2019 **Sub. Code: 2002**

M.Sc. SPORTS AND FITNESS NUTRITION EXAMS

FIRST YEAR

PAPER II – EXERCISE PHYSIOLOGY FOR SPORTS & FITNESS

Q.P. Code: 282002

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Describe anatomy of skeletal muscle. Discuss the mechanism of Excitation contraction coupling in a skeletal muscle fibre.

2. Describe various methods of determining L.T. Discuss in detail one method to estimate LT analysis using treadmill. Discuss differences between LT and OBLA.

II. Write Short notes on: **(10 x 6 = 60)**

1. What is Oxygen and haemoglobin dissociation curve?
2. Methods of body composition measurement.
3. Explain the Skin Fold thickness.
4. Explain the Central and peripheral adaptations to training.
5. What is cardiovascular drift?
6. Describe the Coronary circulation & amp; implications in exercise and rehabilitation.
7. What are the Nutritional supplements in sports?
8. Define and explain the Altitude acclimatization.
9. What are the types of Muscle fibre?
10. Explain the Vo2 max.

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[AHS 0321] MARCH 2021 Sub. Code: 2002

(OCTOBER 2020 EXAM SESSION)

M.Sc. SPORTS AND FITNESS NUTRITION

FIRST YEAR (From 2018-2019 onwards)

PAPER II – EXERCISE PHYSIOLOGY FOR SPORTS AND FITNESS

Q.P. Code : 282002

Time: Three hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate notes on: (2 x 20 = 40)

1. Write in detail about the structure, the mechanism of excitation –contraction coupling mechanisms with a neat labeled diagram. Add a note on muscle atrophy.
2. Describe in elaborate the circulatory and respiratory changes during exercise. Add a note on heart rate in trained atheletes.

II. Write Short Notes on: (10x6 = 60)

1. Metabolic responses during and recovery from exercises.
2. Negative feedback in homeostasis.
3. Reflex arc.
4. Functions of cerebellum.
5. Factors regulating arterial blood pressure.
6. Importance of acid-base regulation during exercise.
7. Glucose homeostasis.
8. Body temperature regulation.
9. Endurance training.
10. Pulmonary volumes and capacities.

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[AHS 0921] **SEPTEMBER 2021** **Sub. Code: 2002**
(MAY 2021 EXAM SESSION)

M.Sc. SPORTS AND FITNESS NUTRITION
FIRST YEAR (From 2018-2019 onwards)
PAPER II – EXERCISE PHYSIOLOGY FOR SPORTS AND FITNESS
Q.P. Code : 282002

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate notes on: **(2 x 20 = 40)**

1. Write in detail about the different forms of energy utilized during exercise and metabolic changes ocurring both during and recovery phase of exercises.
2. Describe in elaborate the ventilatory control during various forms of exercises (mild, moderate and severe).

II. Write Short Notes on: **(10x6 = 60)**

1. Excitation – contraction Coupling mechanism of skeletal muscle.
2. Feedback in homeostasis.
3. Muscle chemoreceptor.
4. Motor control functions of spinal cord.
5. Regulation of heat loss/gain during exercise.
6. Cardiac output.
7. Physiological actions of parathyroid hormones.
8. Oxygen Hemoglobin Dissociation Curve.
9. Intracellular Buffers.
10. Physiological Effects of Strength Training.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0222] **FEBRUARY 2022** **Sub. Code: 2002**
(OCTOBER 2021 EXAM SESSION)

M.Sc. SPORTS AND FITNESS NUTRITION
FIRST YEAR (Candidates admitted from 2018-2019 & 2020-2021 onwards)
PAPER II – EXERCISE PHYSIOLOGY FOR SPORTS AND FITNESS
Q.P. Code : 282002

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate notes on: **(2 x 20 = 40)**

1. Write in detail about the transport of oxygen in human body .Add a note on oxygen debt.
2. Describe in elaborate the cardiorespiratory changes during exercise. Add a note on VO2 Max.

II. Write Short Notes on: **(10x6 = 60)**

1. Energy utilization during and recovery from exercises.
2. Positive feedback in homeostasis.
3. Reflex action.
4. Functions of Vestibular apparatus.
5. Regulation of local blood flow during exercise.
6. Muscle Atrophy.
7. Physiological actions of thyroid hormones.
8. Cold acclimitazation.
9. Extracellular Buffers.
10. Types of skeletal muscle fibers.

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