

TILAK MAHARASHTRAVIDYAPEETH, PUNE
M.SC. IN NUTRITION & FOOD SCIENCE
EXAMINATION : APRIL/MAY- 2026
FOURTH SEMESTER
Sub. : Sports & Fitness Nutrition (MSC24N-413TH)

Date: 25/04/2026

Total marks: 60

Time: 2.00 pm to 4.30 pm

Instructions:

- 1) All questions are compulsory and carry equal marks.
- 2) Any kind of misconduct is punishable.

Q. 1 Fill in the right answer (10)

1. _____ metabolic pathway is responsible for the rapid resynthesis of ATP during a 100m dash.
a) Oxidative phosphorylation b) Beta-oxidation
c) Phosphocreatine (PCr) system d) Gluconeogenesis
2. Which amino acid is a primary precursor for nitric oxide, aiding in vasodilation and blood flow?
a) Leucine b) Arginine
c) Valine d) Glutamine
3. The "Anabolic Window" suggests that protein and carbs should be consumed within _____ post-exercise for optimal recovery.
a) 5 minutes b) 30–60 minutes
c) 4 hours d) 24 hours
4. The primary goal of a "Pre-event meal" is to _____.
a) Build muscle fiber b) Top up liver glycogen and maintain blood glucose
c) Increase body fat stores d) Induce sleep
5. The primary electrolyte lost in the highest concentration through sweat is _____.
a) Sodium b) Potassium
c) Magnesium d) Calcium
6. _____ among the following is a banned ergogenic aid.
a) Caffeine b) HMB
c) Androgens d) Beta- alanine
7. Creatine Monohydrate is most effective for improving performance in _____.
a) Long-distance swimming b) Repeated bouts of high-intensity sprinting
c) Marathon running d) Chess
8. Omega-3 fatty acid supplementation in athletes is primarily researched for its ability to _____.
a) Increase VO₂ Max directly b) Act as a primary fuel source
c) Reduce exercise-induced inflammation and DOMS d) Increase peak power output

10. Vegan athletes usually are deficient of ____.

(30)

2. Justify why maintaining water balance is critical for thermoregulation and athletic performance. Discuss the symptoms of dehydration and provide a simple guide for fluid intake before, during, and after a match.

(20)

- ### 3. Female athlete triad