

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

Branch – CLINICAL NUTRITION AND DIETETICS

MAJOR ELECTIVE COURSE – I:
FITNESS AND SPORTS NUTRITION

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which one of the following is a skill related component of physical fitness?
(i) Flexibility (ii) Power
(iii) Muscle endurance (iv) Body composition
- 2 Which of following represents the greatest source of glucose for use by the muscle?
(i) Blood glucose (ii) Liver glycogen
(iii) Muscle glycogen (iv) Intramuscular triglycerides
- 3 Choose a potential side effect of insufficient daily carbohydrate intake in athletes.
(i) Muscle cramping (ii) Impaired glycogen replenishment
(iii) Water retention (iv) Diarrhea
- 4 What is the primary characteristic of the female athlete triad?
(i) Compulsive bingeing (ii) Low bone density
(iii) Regular menses (iv) Self-induced vomiting
- 5 Which one of the following is the gold standard of body composition determination?
(i) Hydrostatic weighing (ii) Bioelectrical impedance analysis
(iii) Plethysmography (iv) Dual-energy X-ray absorptiometry

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a State the association between physical fitness and wellness.
OR
b Discuss the objectives of physical fitness.
- 7 a Classify the types of exercise with a suitable example.
OR
b Illustrate the mobilization of fat stores during exercise.
- 8 a Explain the role of carbohydrate loading on the performance of endurance events.
OR
b Discuss the role of ergogenic aids in sports.

Cont...

- 9 a Recommend some personalized approaches to improve the nutritional issues faced by the athletic adolescents.
OR
b Discuss on female athletic triad.
- 10 a Explain the principles of diet during and after exercise.
OR
b Analyze the importance of incorporating both aerobic and anaerobic exercises in gymnastic training.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Elucidate the domains of fitness in detail.
OR
b Recommend motivational strategies to stay on track and enhance the physical fitness.
- 12 a Enumerate the muscular and cardiopulmonary adaptations to exercise.
OR
b Compare the aerobic and anaerobic energy system at rest and during exercise.
- 13 a Evaluate the importance of fluid and electrolytes before and during exercise regimen. What types of sports drinks available during and after a sports event?
OR
b Define pre-event meal (2-4 hours pre-event). Prepare a menu according to the goals of pre-event meal.
- 14 a Analyze the role of disordered eating pattern on the menstrual dysfunction.
OR
b Classify the eating disorders. Discuss the impact of eating disorders on sports performance.
- 15 a Plan a diet for a female athlete suffering from GI stress and preparing for an endurance athletic event. Describe the changes in diet for pre-event and post-event meal.
OR
b Classify the methods used for assessing body composition of a sports person.

Z-Z-Z

END