



H. Sambal

Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD [now MoE]

Re-accredited with A++ Grade by NAAC. CGPA 3.65 /4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Bachelor of Physical Education Degree Examination – April 2026 II Semester

Class: I B.P.Ed.

Time : 3 Hours

Max. Marks : 100

23BPDE2B DSE - II: Sports Nutrition and Weight Management

Course Outcomes:

- CO1: Categorize the role of each micro and macronutrients have on physical activity and athletic Performance
- CO2: Understand the basic classification, functions and utilization of nutrients
- CO3: Plan diet requirement for competitions and nutrient supplements for performance
- CO4: Evaluate the factors affects weight management and solutions related to common co-morbidities
- CO5: Identify and discuss specific nutritional issues associated with various sports in different age groups

Part A 10 x 1 = 10

Choose the Correct Answer

1. Identify the primary macronutrient used for immediate energy during exercise. CO1 K1
a. Protein b. Fat c. Carbohydrate d. Vitamin
2. Recognize the main function of vitamins in the body. CO2 K1
a. Provide energy b. Regulate metabolic processes
c. Build muscles d. Store glycogen
3. Select the correct timing for a pre-game meal. CO3 K2
a. 10 minutes before b. 2–3 hours before
c. During competition d. After competition
4. Identify the formula used to calculate BMI. CO4 K1
a. Weight + Height b. Weight + Height²
c. Height + Weight² d. Weight × Height
5. Recognize a key principle of hydration for athletes. CO1 K2
a. Drink only when thirsty b. Avoid fluids before exercise
c. Maintain fluid balance d. Drink only after exercise
6. Identify a major cause of heatstroke. CO2 K2
a. Low carbohydrate intake b. Dehydration and high temperature
c. Protein deficiency d. Low heart rate
7. Choose the correct purpose of carbohydrate loading. CO3 K2
a. Reduce weight b. Increase glycogen storage
c. Decrease metabolism d. Reduce hydration
8. Recognize the false statement about weight loss. CO4 K2
a. Exercise helps weight control b. Balanced diet is essential
c. Sport reduction removes fat locally d. Calorie balance affects weight
9. Identify an essential component of a weight management program for children. CO5 K2
a. Meal skipping b. Balanced diet and exercise
c. Only supplements d. Fasting
10. Select the nutrient responsible for tissue repair. CO1 K1
a. Protein b. Fat c. Vitamin C d. Water

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Explain the role of micronutrients in physical performance. CO1 K2
(or)
- 11.b. Discuss the importance of water during sports. CO2 K2
- 12.a. Explain dietary recommendations before, during and after competition. CO3 K3
(or)
- 12.b. Evaluate the importance of Carbohydrate loading. CO1 K4
- 13.a. Explain BMI and its role in evaluating health status. CO4 K2
(or)
- 13.b. Describe the causes and prevention of heatstroke in athletes. CO2 K3
- 14.a. Analyze factors affecting weight management. CO4 K4
(or)
- 14.b. Explain the role of diet and exercise in weight control. CO5 K2
- 15.a. Outline steps for planning a weight management program. CO5 K3
(or)
- 15.b. Explain the role of supplements in improving performance. CO3 K3

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Analyze how carbohydrates, proteins and fats are utilized during exercise. CO1 K4
(or)
- 16.b. Evaluate daily calorie requirement and expenditure for athletes. CO2 K5
- 17.a. Design a balanced diet plan for competition preparation. CO3 K6
(or)
- 17.b. Compare functions and sources of vitamins, minerals and water in performance. CO2 K4
- 18.a. Evaluate obesity, its causes, risks and preventive strategies. CO4 K5
(or)
- 18.b. Analyze myths and scientific principles of weight loss. CO4 K4
- 19.a. Develop a weight management program for a sporty child. CO5 K6
(or)
- 19.b. Design diet and exercise schedules for weight gain and loss. CO5 K6
- 20.a. Analyze the importance of hydration and nutrient balance for endurance performance. CO1 K4
(or)
- 20.b. Evaluate supplementation strategies for improving sports performance. CO3 K5
