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)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – November 2024
III Semester

Class : II UG | **Time: 3 Hours**
Major : Physical Education | **Max. Marks: 100**

23BPEC09 Fitness Training and Nutrition

Course Outcomes:

CO1. Familiarise the student with fitness education and training.
CO2: Develop skills to establish daily fitness prescription for the clients.
CO3: Acquaint student with principles of sports nutrition.
CO4: Understand the relationship between fitness training and nutrition.
CO5: Construct individualized nutrition plan for specific events.

Part A **10 x 1 = 10**

Choose the Correct Answer

1. Which of the following best defines fitness? CO1 K3
   a. The ability to lift heavy weights
   b. The state of being physically active and healthy
   c. The amount of time spent exercising each week
   d. The ability to perform daily tasks with minimal effort

2. _____is an example of a health-related component of fitness CO2 K2
   a. Agility b. Balance
   c. Cardiovascular endurance d. Coordination

3. The energy value of food is measured in the unit of CO1 K1
   a. gram b. watt
   c. calories d. ampere

4. The sport of Shot Put relies primarily on what energy system? CO2 K3
   a. ATP-CP b. Lactic acid
   c. Aerobic d. Muscle energy

5. Balanced diet consist high source of CO1 K1
   a. Protein b. Fruits
   c. Fats d. All the components in balanced form

6. What is the primary goal of strength training exercises? CO2 K2
   a. Improve flexibility b. Increase muscle strength and endurance
   c. Enhance cardiovascular health d. Reduce body fat

7. Which macro nutrient is most effective for muscle repair and growth? CO3 K2
   a. Carbohydrates b. Fats
   c. Proteins d. Water

8. Carbohydrate loading mostly helps CO3 K3
   a. Marathon runners b. Boxer
   c. Sprinter d. Powerlifters

9. Total number of vitamins required by human body are CO2 K3
   a.10 b.11
   c.12 d.13

10. The mineral found in hemoglobin is called as CO4 K2
   a. Sodium b. Protein
   c. Iron d. Potassium

Part B — 5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

11. a. Define fitness and its importance in daily life.	CO1 K1
(or)	
11. b. Write about fitness education and implementation into a school curriculum?	CO2 K2
12. a. What are the consequences of an energy imbalance in the body?	CO3 K3
(or)	
12. b. Discuss three energy system in detail that occur in the body of regular exercise.	CO2 K2
13. a. Explain about strength exercise and cardio vasculae exercise.	CO3 K2
(or)	
13. b. List some of the importance of stretching exercises.	CO1 K2
14. a. What are the Importance of micro nutrients.	CO2 K2
(or)	
14. b. Explain the role of protein in muscle repair and growth.	CO3 K4
15. a. What are the fluid demands during physical activity?	CO2 K3
(or)	
15.b. Explain the factors leading to heat stroke and strategies to avoiding it.	CO3 K3

Part C — 5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Write down the importance of warm-up and warm-down for elite athletes.	CO1 K3
(or)	
16. b. Distinguish between health-related and motor-related fitness components.	CO3 K4
17.a. Discuss the body's need of energy and estimation of energy?	CO2 K1
(or)	
17. b. Write the long-term effects of physical activity on metabolic rate and energy expenditure.	CO4 K5
18. a. Describe various cardiovascular exercises and their contribution.	CO4 K5
(or)	
18.b. Write the exercise guidelines and program design for adolescent.	CO5 K3
19.a. Describe the main sources of carbohydrates, proteins, and fats. How do these sources vary in their nutritional content?	CO2 K3
(or)	
19. b. What are the impacts of insufficient macronutrient intake on athletic performance and overall health?	CO3 K4
20. a. Write about the consumption of micronutrient during and after exercise.	CO4 K3
(or)	
20. b. Explain the importance of pre, during and post competition diet.	CO3 K2