

B.Sc (Hons) FNS Sem.-7 Examination**FNS-414****Nutrition, Exercise & Sports****Time : 2-30 Hours]****December-2024****[Max. Marks : 70**

Instructions: Illustrate your answers with neat diagrams wherever necessary.

Q. 1 Write the following

- (i) What is nutrient periodization? Explain in detail about pre and post exercise meals (7 Marks) for athletes?
- (ii) What do you understand by Carbohydrate loading? Discuss in detail about (7 Marks) importance of carbohydrate loading for enhancing the athlete performance?

OR

- (i) Explain in detail the role and importance of hydration and electrolytes in athlete (7 Marks) performance and recovery?
- (ii) What is Competition nutrition? Write in detail about timing and composition of (7 Marks) pre-post workout meals?

Q. 2 Write the following

- (i) What is Ergogenic aids? Write in detail about different types of dietary (7 Marks) supplements and their specific role in enhancing athlete performance and recovery process?
- (ii) Discuss in detail about role of antioxidants in reducing exercise-induced oxidative (7 Marks) stress?

OR

- (i) Explain in detail about nutritional and life style strategies for enhancing post (7 Marks) exercise recovery?
- (ii) Write a detail note on protein supplements available for vegetarian and vegan (7 Marks) athletes?

(P.T.O)

Q. 3 Write the following

- (i) What do you understand by Vegetarianism? Write in detail about vegetarian and vegan diet for an endurance athlete? (7 Marks)
- (ii) What are the dietary consideration for female athlete in relation to different phases of menstruation? (7 Marks)

OR

- (i) Discuss the nutrition and hydration strategies for young female athlete? (7 Marks)
- (ii) What are the dietary modifications for an athlete with chronic metabolic disorder (Diabetes) ? (7 Marks)

Q. 4 Write the following

- (i) Write any 2 case studies pertaining to nutrient intervention for performance enhancement in athlete? (7 Marks)
- (ii) Role of sports nutritionist and dietitian in sport science. Explain? (7 Marks)

OR

- (i) Design a personalized nutrition plan for young female athlete? (7 Marks)
- (ii) Discuss about technological innovation and future research pertaining to sports nutrition in Indian athletes? (7 Marks)

Q 5. Attempt any seven out of twelve

(14 Marks)

- (i) Define Nutrigenomics?
 - (ii) DOMS
 - (iii) Gut brain axis
 - (iv) Ergogenic aids
 - (v) Epigenetics
 - (vi) Metabolomics
 - (vii) Antioxidants
 - (viii) Three R principles of recovery
 - (ix) Carbohydrate loading
 - (ix) Sleep protein
 - (x) RED-S
 - (xi) Vitamin D and Immunity
 - (xii) Happy Hormone
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