

PH 811.4

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St Aloysius College (Autonomous)
Mangaluru

Semester IV – P.G. Examination - M.Sc. Food Science, Nutrition and Dietetics

May/June - 2023

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NUTRITIONAL BIOCHEMISTRY MANGALORE-575 003

Time: 3 Hours

Max. Marks: 70

I. Answer any SIX of the following.

(6x3=18)

1. Illustrate glycine-serine-choline cycle.
2. Write a note on glycoproteins.
3. Write in brief about transamination and deamination.
4. What are prostaglandins?
5. Write in short note on ketogenesis.
6. What are coenzymes?
7. Classify hormones based on their characteristics and functions.

II. Answer any FOUR of the following.

(4x7=28)

8. Illustrate and describe the metabolic reactions involved in Krebs's cycle.
9. What is DNA replication? Discuss about the enzymes involved in the process.
10. Illustrate and explain oxidative and non-oxidative phase of HMP.
11. Write the classification of enzymes and explain the mechanism of enzyme action.
12. Explain the biochemical functions of pituitary gland hormones.

III. Answer any TWO of the following:

(2x12=24)

13. Give a detailed account on metabolism of phenylalanine and pyrimidines.
14. Illustrate and explain
 - a) Biosynthesis of cholesterol
 - b) Beta-oxidation of fatty acids.
15. Explain
 - a) Biosynthesis of thyroid hormones
 - b) Metabolism of fructose.

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St Aloysius College (Autonomous)

Mangaluru

Semester IV – P.G. Examination - M.Sc. Food Science, Nutrition and Dietetics

May/June - 2023

COMMUNITY NUTRITION

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MANGALORE-575 003

Time: 3 Hours

Max. Marks: 70

I. Answer any **SIX** of the following.

(6x3=18)

1. Write a short note on CSR?
2. Write a short note on nutritional assessment.
3. Write a short note on listening skills in communication process?
4. Define the term consumption unit.
5. What are the causative factors for rickets?
6. Define the term sanitation and hygiene in food distribution.
7. Write a short note on Aristotle model of communication?

II. Answer any **FOUR** of the following.

(4x7=28)

8. Write the concept of extension education and explain the principles of extension education.
9. What do you mean by KAP questionnaire? Write the significance of purpose of KAP study.
10. Write in details about the roles and responsibilities of the NNMB in surveillance nutrient deficiency.
11. List the types of natural disaster. Discuss on the nutritional management during disaster.
12. Briefly explain about the mid-day meal programme.

III. Answer any **TWO** of the following:

(2x12=24)

13. What are Health Indicators? Explain in detail about different types of health indicators.
14. Define the principles, pros and cons of fortification strategy? Discuss on the types of fortification and list the foods and fortificants in Indian fortification program.
15. Discuss the nutritional assessment methods during a disaster. Add a note on feeding programmes during a disaster.

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Mangaluru

Semester IV – P.G. Examination - M.Sc. Food Science, Nutrition and Dietetics

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May/June - 2023

SPORTS NUTRITION

Time: 3 Hours

Max. Marks: 70

I. Answer any SIX of the following.

(6x3=18)

1. Define Exercise Physiology and Metabolism.
2. Write about EPOC with a pictorial representation.
3. Write short notes on assessment of hydration status of athletes.
4. What is Carbohydrate Loading?
5. Relationship between meal timing and performance.
6. Write a short note on ACL Tear and rehabilitation strategies.
7. Write a brief note on the nutrition assessment principles for a type I diabetic athlete.

II. Answer any FOUR of the following.

(4x7=28)

8. Explain fatigue and its types. How is fatigue different from overtraining syndrome?
9. Define Body Composition. Write about any two common methods of body composition assessment among athletes.
10. Write about the effect of amino acids on work performance.
11. Explain the importance and provide a recipe of a post-exercise meal.
12. What are the concepts and objectives of rehabilitation?

III. Answer any TWO of the following:

(2x12=24)

13. Explain in detail the assessment of health and fitness of athletes.
14. Ms. Z is a vegan athlete, training for middle-distance running events. She is presently eating lower quantities of diet and has lost 5kgs from her ideal weight (55kg). Kindly explain the possible nutritional concerns of the athlete, and the nutritional and dietary recommendations, including food choices, for improving the body weight and for gaining adequate nutrients.
15. What are the general physiological and metabolic adaptation to training?

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St Aloysius College (Autonomous)
Mangaluru

Semester IV – P.G. Examination - M.Sc. Food Science, Nutrition and Dietetics

ST. ALOYSIUS COLLEGE
FOOD SCIENCE,
MANGALORE-575 003

May/June - 2023

FOOD SAFETY AND QUALITY CONTROL

Time: 3 Hours

Max. Marks: 70

I. Answer any SIX of the following.

(6x3=18)

1. What is TQM? Write on its importance in the Food Industry.
2. Differentiate between Quality Control and Quality Assurance.
3. Give the silent features of ISO 22000.
4. What is critical limit?
5. Differentiate between cleaning and sanitation.
6. Write briefly about USFDA and FSSAI.
7. Define Traceability System and mention at-least two characteristic of the system.

II. Answer any FOUR of the following.

(4x7=28)

8. Explain on Food labeling with regard to FSSAI regulation.
9. Explain on different Food hazards, their sources, effects, detection and prevention.
10. What are the major principles of Good Laboratory Practices?
11. Discuss on the role of International Food Regulatory Bodies (ISO and Codex) in Food Safety.
12. Discuss the effects of pests on agricultural practices.

III. Answer any TWO of the following:

(2x12=24)

13. Elaborate in detail about the WTO agreement including SPS and TBT agreement.
14. Explain in detail the seven HACCP Principles.
15. Discuss on food quality management (FQM). Discuss Good Manufacturing Practices in a food production unit.
