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KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
YEAR ONE, SEMESTER ONE & YEAR ONE, SEMESTER TWO EXAMINATION
BACHELOR OF SCIENCE IN HOSPITALITY MANAGEMENT
KHM 2102 – FOOD SCIENCE AND NUTRITION

Date: 9th December 2024

Time: 2.30am-4.30pm

INSTRUCTIONS TO CANDIDATES:

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

Case study: NUTRITIONAL GUIDANCE FOR TWO FRIENDS.

- a) Two close friends, Fiona and Lynn, are in their mid-20s and both face different but significant health challenges related to their weight. Fiona is **overweight**, while Lynn is **underweight**. They both feel uncomfortable with their current conditions and want to adopt healthier lifestyles. Recognizing the need for professional help, they consult you as a nutritional expert for personalized advice.

Fiona

Height: 5 ft

Weight: 91 kgs

Symptoms: Low energy, occasional joint pain, frequent cravings for sugary snacks.

Lynn

Height: 6ft

Weight: 54 kg

Symptoms: Frequently tired, low muscle mass, difficulty gaining weight, feels weak after walking.

- a) Calculate the body mass index of Fiona and Lynn and determine their BMI status (5 marks)
- b) Explain 5 ways can Fiona can loose weight and live a healthy lifestyle (5 marks)
- c) Give 5 tips to Lynn on eating well in order to gain healthy weight (5 Marks)
- d) Eating a balanced diet is not enough but an individual should consider a nutritious diet in order to live healthy, describe 4 characteristics of a nutritious diet (4 marks)
- e) Explain three differences between a la carte and table d'horte types of menus (6 marks)
- f) Water is very essential nourishment for the body. Elaborate five functions of water (5 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO (20 MARKS)

- a) Proteins are macronutrients that help to build body muscles, hair, skin and bones. Describe four sources of proteins and their use (8 marks)
- b) Elucidate four environmental hygiene requirements while working at a kitchen (8 marks)
- c) Give four reasons why sugar, salt and fat can pose danger to human health (4 marks)

QUESTION THREE (20 MARKS)

- a) You are part of a nutritional team and you are asked to design a four course table d'hôte menu considering healthy choices of food, discuss (10 marks)
- b) Food science and nutrition is field of science that not only deals with research on food but is also intertwined with other corelated fields. Explain four roles of agriculture in food science and nutrition (8 marks)
- c) Explain the HACCP concept (2 marks)

QUESTION FOUR (20 MARKS)

- a) Food group is a collection of foods that share similar nutritional properties or biological classifications, elaborate four classification of food groups (8 marks)
- b) Food can be prepared in numerous ways. Discuss four dry heat methods of food preparation (8 marks)
- c) Healthy and good food should not have any blemishes. Describe four Characteristics of food fit for human consumption (4 marks)

QUESTION FIVE (20 MARKS)

- a) Eating habits are conscious, collective, and repetitive behaviours, which lead people to select, consume, and use certain foods or diets, explain four international food cultures and give their significance. (8 marks)
- b) Food if not handled well by food handlers, can be a cause of numerous illnesses. Enumerate four Critical points of contamination of food. (8 marks)
- c) Explain two ways a kitchen layout can contribute to unhygienic work place. (4 marks)