



# MACHAKOS UNIVERSITY

University Examinations 2019/2020 Academic Year

SCHOOL OF HOSPITALITY AND TOURISM MANAGEMENT

DEPARTMENT OF HOSPITALITY MANAGEMENT

FIRST YEAR THIRD SEMESTER EXAMINATION FOR

CERTIFICATE IN FOOD & BEVERAGE PRODUCTION

FOOD SCIENCE AND NUTRITION

DATE: 14/12/2020

TIME: 8.30-11.30 AM

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## INSTRUCTIONS

Answer all the question.

- 1 (a) Explain the meaning of each of the following terms
    - i. Food (2 marks)
    - ii. Food science (2 marks)
  - (b) (i) explain the phrase essential amino acids (2 marks)
    - (ii) Identify six examples of essential amino acids (3 marks)
    - (iii) Outline four functions of sugar in cake making (4 marks)
    - (iv) Differentiate between dextrinization and gelatinization (1 mark)
  - (c) (i) explain five function of the fats in body (5 marks)
    - (ii) State five uses of fruits in food processing (5 marks)
  - (d) State three measures that should be taken by food handlers to ensure that production procedures do not contribute to contamination of food (6 marks)
  - (e) Outline three reasons that make it necessary to enforce food laws (3 marks)
  - (f) Outline seven measures that should be taken by food preparation staff to control contamination by houseflies (7 marks)
- 2 (a) Identify six possible sources of staphylococcus aureus food poisoning bacteria (3 marks)

- (b) List six carbohydrate food ingredients that may be used in the production of alcoholic beverages (3 marks)
- (c) State three benefits that a food establishment may derive from buying food preserved by the drying method (3 marks)
- (d) Explain the meaning of each of the following terms as used in food science
- i. salt
  - ii. Base
  - iii. Acids (6 marks)
- 3 (a) State four reasons that may account for malnutrition in HIV patients (4 marks)
- (b) State five objectives that an organization may seek to achieve by using food additives (5 marks)
- (c) Explain three reasons that make nutrition important to trainees pursuing a course in food production (6 marks)
- 4 (a) Explain the meaning of each of the following terms as used in food science
- (i) Hydrocarbons
  - (ii) Polymerization
  - (iii) Isomerism (6 marks)
- (b) Outline five benefits associated with food preservation (5 marks)
- (c) Explain the meaning of each of the following term
- (i) Food poisoning
  - (ii) Toxins (4 marks)
- 5 (a) Identify four food commodities under each of the following categories
- (i) High acid foods (2 marks)
  - (ii) Low acid foods (2 marks)
- (b) Outline five indicators of osteomalacia (5 marks)
- (c) State four consequences of vitamin A deficiency (4 marks)
- (c) Outline five consequences associated with high salt intake (2 marks)