



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF BIOMEDICAL SCIENCES AND TECHNOLOGY
FIRST SEMESTER, 2023/2024
(AUGUST-DECEMBER, 2023)

BIOC 304: BASIC NUTRITION AND DIETETIS

STREAM: Y3 S1

TIME: 2 HOURS

DAY: THURSDAY, 3:00 – 5:00 P.M.

DATE: 07/12/2023

INSTRUCTIONS

- 1. Do not write anything on this question paper.***
- 2. Answer ALL questions in Section A***
- 3. Answer question ONE (COMPULSORY) and any other question in Section B.***

SECTION A: Answer ALL the questions (40 marks)

1. Explain the following terms as used in nutrition; (5 marks)
 - a) Pyridoxine
 - b) Microcytic anemia
 - c) Hypokalemia
 - d) Malnutrition
 - e) Creatinine
2. Discuss briefly nutrition as a process (5 marks)
3. Differentiate between CCF and AKI which are medical abbreviations as defined by diet intake. (4 marks)
4. UECS is an investigation done to patients with bilateral oedema:
 - a) Write the investigation as abbreviated above in full. (1mk)
 - b) Correlate the function of the investigation in relation to nutrition? (3 marks)
 - c) Prepare a care plan for the patient if he presents with hypernatremia, elevated creatinine and elevated urea in diet. (4 marks)
5. DKA is a medical abbreviation used in patients with diabetes mellitus;
 - a) What does DKA represent in full? (1 mark)

b) Briefly explain two interventions which you can make to manage the patient with DKA in diet? (3 marks)

6. a) What are the LFTS? (1mk)

b) State four elements of LFTS (2MKS)

7. a) What is a nutrition disorder? (1mk)

b) Give five examples of nutrition disorder (5mks)

c) Explain briefly BMI as a risk factor for hypertension (5mks)

SECTION B: Answer question one (compulsory) and any other one question (30 marks)

8. As a healthy provider in Kisii Teaching and Referral Hospital, you have been asked to take a sample of Full Heamogram (FHG) for patient 'K' to investigate the components of blood; and your results were as follows:

I) WBC were elevated

II) RBC were in normal ranges

III) MCV were low

IV) MCH were low

V) PLTS were elevated

a) Were the findings nutritionally informative? (5marks)

b) Explain how your nutrition interventions will solve patient 'K's problem and remain stable. (10marks)

9. a) What is a lifestyle disease? (1mark)

b) Is lipid profile type of investigation good for patients with obesity? (4marks)

c) Explain two classifications of lipids. (4marks)

d) Discuss ways of management of obese patients on the basis of nutrition. (6marks)

10. a) Discuss the nutritional requirements for pregnant and lactating mothers. (8marks)

b) i. In FHG (full haemogram), explain the detection of macrocytic anemia. (2marks)

ii. State the nutritional intervention in b (i) above to correct the condition. (5marks)