



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2023/2024

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN BIOCHEMISTRY

SHC 3450: CLINICAL BIOCHEMISTRY

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

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|--|-----------|
| a) Describe leucocyte and nitrite test | (2 marks) |
| b) Outline the procedure of serum collection | (3 marks) |
| c) Outline the significance of reticulocyte count | (2 marks) |
| d) Describe cock rott-Gault formula | (3 marks) |
| e) Explain the C-peptide | (2 marks) |
| f) Describe glycolyated humoylobin HbA1C | (3 marks) |
| g) Explain the normal chemical constituents of urine | (4 marks) |
| h) Explain the cerebrospinal fluid examinations | (2 marks) |
| i) Classify cause of jaundice | (3 marks) |
| j) Explain the principle of uric acid analysis | (3 marks) |
| k) Explain the significance of microalbuminuria | (3 marks) |

QUESTION TWO (20 MARKS)

- a) Discuss the lipid profile (10 marks)
- b) Explain the four types of urine specimen (10 marks)

QUESTION THREE (20 MARKS)

- a) Discuss types of blood glucose tests (10 marks)
- b) Discuss the enzymes involved in lime function tests (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss blood collection tubes (10 marks)
- b) Discuss the 'abnormal pathological constituents of urine (10 marks)