

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FOURTH YEAR EXAMINATION FOR THE AWARD OF
BACHELOR DEGREE IN BIOMEDICAL TECHNOLOGY**

BMET 424: CLINICAL PATHOLOGY

STREAMS: Y4S2 Bsc. CHEMISTRY

TIME: 2 HOURS

DAY/DATE : TUESDAY 28 /09/ 2021

2.30 PM – 4.30 PM

INSTRUCTIONS:

- Answer Question One and any other Two Questions
- Do not write on the question paper

QUESTION ONE (COMPULSORY) 30 MARKS

- a) Explain 5 principal reasons for requesting biochemical tests. [5 Marks]
- b) Plasma and serum are blood components commonly used for diagnosis in a clinical pathology laboratory:
- (i) Briefly describe the difference between the two. [2 Marks]
- (ii) Highlight the advantages and disadvantages of using either serum or plasma in clinical diagnosis. [4 Marks]
- c) Explain 4 dipstick indicators of infection in urinalysis. [4 Marks]
- d) Outline any 5 basic thyroopathy tests [5 Marks]
- e) Highlight 6 advantages of determining cardiac troponins in the diagnosis myocardial infarction. [6 Marks]
- f) Explain the procedure used in the clinical diagnosis of acute hepatitis B. [4 Marks]

QUESTION TWO (20 MARKS)

- a) Discuss Kidney Function Tests under the following subheadings:
 - i) Glomerular Filtration Tests [6 Marks]
 - ii) Tubule Function Tests [6 Marks]
- b) Explain 4 useful tests that are carried out to evaluate the status of protein synthesis by the liver. [8 Marks]

QUESTION THREE (20 MARKS)

- a) Describe various biochemical tests done to evaluate various infections affecting cerebrospinal fluid (CSF) [10 Marks]
- b) Describe various laboratory assays for acute myocardial infarction and heart failure. [10 Marks]

QUESTION FOUR (20 MARKS)

- a) Explain sources of variability during sampling for thyroid tests. [10 Marks]
- b) Describe any 5 serological tests done in the laboratory diagnostics of gastric pathologies. [10 Marks]

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