



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

Faculty of Health, Applied Sciences and Natural Resources

Department of Health Sciences

QUALIFICATION: BACHELOR OF MEDICAL LABORATORY SCIENCES	
QUALIFICATION CODE: 08BMLS	LEVEL: 8
COURSE: INTRODUCTION TO MEDICAL LABORATORY SCIENCES	COURSE CODE: IML511S
DATE: JUNE 2022	SESSION: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms Roselin Tsauses
MODERATOR:	Ms Fredrika Engelbrecht

INSTRUCTIONS	
<ol style="list-style-type: none">1. Answer all questions.2. Please write neatly and legibly.3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.4. No books, notes and other additional aids are allowed.5. Mark all answers clearly with their respective question numbers.	

Permissible material

Nonprogrammable calculator is allowed.

THIS QUESTION PAPER CONSISTS OF 5 PAGES (Excluding this front page)

Section A (10 marks)

Question 1

[10]

1. Suggest the blood collection tube correct stopper colour for each of the following medical laboratory tests. Write the correct answer next to each number.

- 1.1 Full Blood Count (FBC) (1)
- 1.2 Liver Function Tests (LFT) (1)
- 1.3 Coagulation studies (1)
- 1.4 Lupus erythematosus (LE) cells (1)
- 1.5 Thyroid Function Tests (TFT) (1)
- 1.6 Erythrocyte Sedimentation Rate (ESR) (1)
- 1.7 RPR (rapid plasma reagin) test (1)
- 1.8 Urea & Electrolytes (1)
- 1.9 Glucose (1)
- 1.10 CD4 (1)

Section B (28 marks)

Question 2

[16]

- 2.1 Name five (5) responsibilities of the Allied Health Professions Council of Namibia. (5)
- 2.2 What do you understand by the term “regulated profession”? (3)
- 2.3 Highlight the importance of ethics in the Medical Laboratory Science profession. (3)
- 2.4 Which committees support the activities of the Allied Health Professions Council? (5)

Question 3

[12]

- 3.1 Classify the departments within the clinical laboratory under the two (2) branches of pathology. Present your answer in a table. (10)
- 3.2 Differentiate between the two (2) branches of pathology identified in question 3.1. (2)

Section C (30 marks)

Question 4

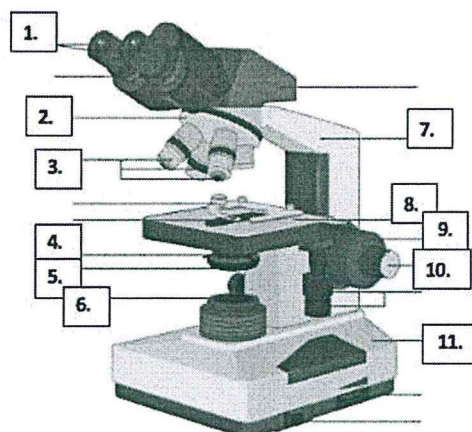
[11]

- 4.1 Discuss the importance of correctly identifying a patient in a medical laboratory context. (6)
- 4.2 Explain the concept of 24-Hour or timed urine specimen collection and its significance. (3)
- 4.3 Which two (2) departments frequently analyze urine samples? (2)

Question 5

[19]

- 5.1 Identify parts labelled (1 -11) on the light microscope below. Write the correct answer next to the corresponding number on your answer sheet. (11)



- 5.2 Discuss any five (5) things you should not do when working with the microscope. (5)
- 5.3 Based on your knowledge regarding the functions of each department in the clinical laboratory, identify three (3) departments in which you think you will be using the microscope most often. (3)

Section D (32 marks)

Question 6

[20]

- 6.1 You are working in the clinical chemistry department. After running a BhCG sample, you see that there are “flags” indicating that the instrument could not detect the result.
- 6.1.1 What do you think could be the possible reason why the instrument failed to detect the result of this test? (1)
- 6.1.2 In a logical sequence, give a detailed explanation on what action you will take to enable the instrument to detect the result of the sample. (7)
- 6.2 After doing daily maintenance on the instrument in the chemistry department, you proceed to run the quality controls. Your print-out indicates that all the quality controls are out of range.
- 6.2.1 Discuss logically and in detail how you will troubleshoot to rectify this. (7)
- 6.2.2 Why is it important not to run patients’ samples if control samples are out of range? (5)

Question 7

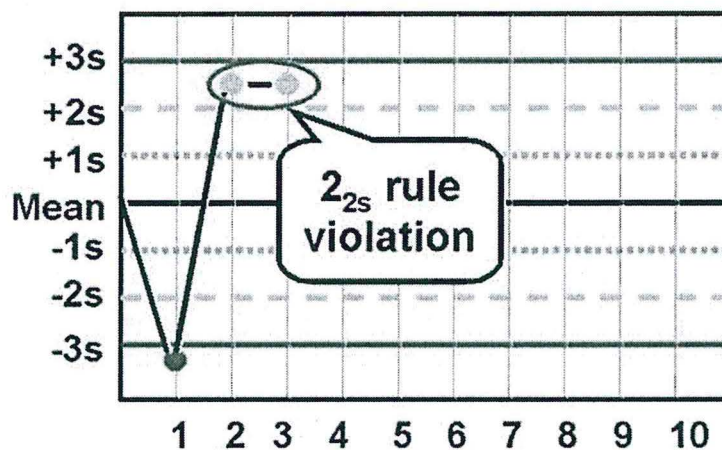
[12]

7.1 What is a Levey-Jennings Chart? (2)

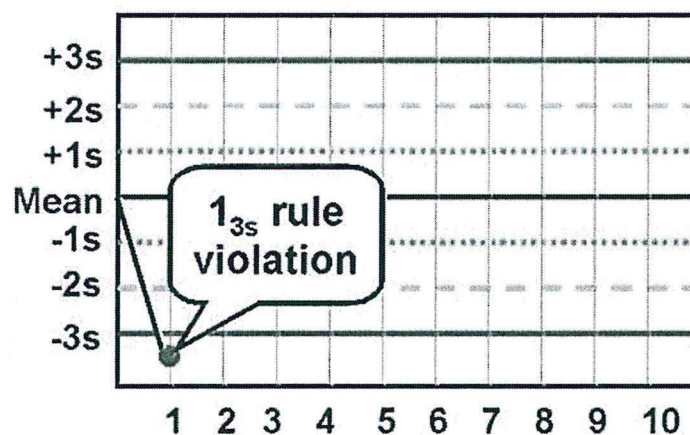
7.2 Describe what is meant by a 'trend' and a 'shift' on a Levey-Jennings Chart and give a possible cause for each. (4)

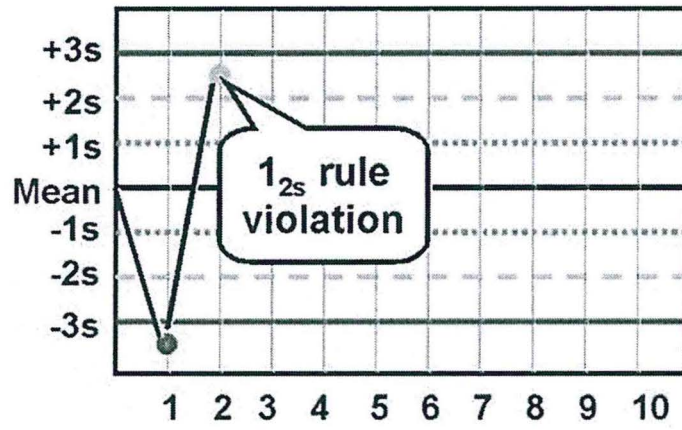
7.3 Study the following graphs. For each graph, explain the criteria of violation of the rule and indicate the type of error identified by the rule.

7.3.1 (2)



7.3.2 (2)





Good luck!