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**TECHNICAL UNIVERSITY OF MOMBASA**

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FACULTY OF APPLIED AND HEALTH SCIENCES  
DEPARTMENT OF MEDICAL SCIENCES

**UNIVERSITY EXAMINATION FOR**  
DIPLOMA IN MEDICAL LABORATORY SCIENCES

AML 2314 : MEDICAL LABORATORY PRACTICAL  
END OF SEMESTER EXAMINATION

**SERIES: AUGUST 2019**

**TIME: 2 HOURS**

**DATE: 20 Aug 2019**

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **TWO** Section(s). Attempt ALL questions.

**Circle the correct answer in section A.**

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**Question One**

You are provided with overnight growths labeled A. With the reagents and stains provided identify the organism as far as possible. (Procedures are required) **25 marks**

Spot I

- |                       |         |
|-----------------------|---------|
| a. Identify the spot  | 1 mark  |
| b. Report on the spot | 4 marks |

## Question Two

A) You are provided with a urine specimen labelled “B” from a patient for routine medical check up. With reagents and apparatus provided.

- (i) Give the name of the specimen container (2 marks)
- (ii) Perform urinalysis and record your findings (10 marks)
- (iii) Write a brief procedure (7 marks)
- (iv) Suggest possible causes of the findings in “ii” above. (3 marks)

(B) Examine spots “III” and “IV” and answer the questions below:

### SPOT “III”

- (i) Give two uses of the spot (4 marks)

### SPOT “IV”

- (ii) Name the spot (2 marks)
- (iii) Give one use of the spot (2 marks)

## Question Three

A patient is suspected to have sickle cell trait. With apparatus and reagents provided, perform the enhanced sickling test and comment on your results. Brief procedures are required.

25 marks

Spot (5mks)

- a. Identify the spot
- b. State its use in the haematology laboratory
- c. Give one alternative for its use

## Question four

With apparatus and reagents provided, perform the avidity test to ascertain whether the donor serum provided can be used for blood grouping (Procedures are required (20mks)

- a. Advise the quality manager on the way forward according to your results (3mks)
- b. Identify spot D 2marks
  - a. What are its uses in the laboratory 1mark
  - b. Give two alternatives that can be used in its place 2marks
  - c. Give two reason why the uses of spot “D” should be discontinued in the clinical set-up 2marks

**Question five**

You have been provided with a slide labelled H, using the reagents provided stain and give the results (20 Marks)

**SPOT VI**

- a) Name spot VI (1 Marks)
- b) Name one use of spot VI (1 Marks)
- c) Name the alternative of spot VI (1 Marks)

**SPOT VII**

- a) Name spot VII (1 Marks)
- b) Name three uses of spot VII (3 Marks)
- c) Name three alternative of spot VII (3 Marks)

**Question Six**

You are provided with blood specimen labelled Q, using the reagents and apparatus provided.

Carry out a laboratory procedure and discuss your findings. (20marks)

**SPOT I**

- i. Identify the spot (2.5 marks)
- ii. What is its medical importance (2.5marks)

**SPOT II**

- Identify the spot (2.5marks)
- What is its medical importance (2.5marks)