

051106T4APB

APPLIED BIOLOGY LEVEL 6

APB/OS/AB/CC/02/6/A

LABORATORY PRACTICE

March /April 2023



THE KENYA NATIONAL EXAMINATIONS COUNCIL

WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

Maximum marks for each question are indicated in brackets ().

*This paper consists of **TWO** sections: A and B.*

Answer questions as per instructions in each section.

You are provided with a separate answer booklet.

This paper consists of THREE (3) printed pages

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing

SECTION A: 40 MARKS

Attempt ALL Questions in this section

1. State any FOUR precautions to take when storing flammable chemicals. 4 Marks
2. Name the FOUR classes of burns. 4 Marks
3. Describe care and maintenance of a laboratory refrigerator. 4 Marks
4. Outline any four safety measures against mechanical hazards in the laboratory. 4 Marks
5. State any FOUR qualities of a good personal protective equipment. 4 Marks
6. Describe safe disposal of sharps in the laboratory. 4 Marks
7. Give the FOUR main functions of a laboratory store keeper. 4 Marks
8. Define the following terms; 4 Marks
 - a) Saturated solution
 - b) Solute
 - c) Solvent
 - d) Standard solution
9. Describe the use of each of the following documents in purchasing. 2 Marks
 - a) Invoice
 - b) Local purchase order
10. Describe the procedure of cleaning a biological spill on a laboratory floor. 4 Marks

SECTION B: 60 MARKS

Attempt any THREE Questions

11. Discuss the principles of management. 20 Marks
12. Describe the following methods of laboratory water treatment.
- a) Distillation 5 Marks
 - b) Reverse osmosis 5 Marks
 - c) Deionisation 5 Marks
 - d) Filtration 5 Marks
13. a) Describe any FIVE safe disposal precautions of radioactive waste in the laboratory. 10 Marks
- b) Name FIVE categories of laboratory waste. 5 Marks
- c) Outline the benefits of reducing laboratory waste. 5 Marks
14. Discuss shock under the following subheadings.
- a) Definition 2 Marks
 - b) Causes 3 Marks
 - c) Symptoms 5 Marks
 - d) First aid procedure 10 Marks