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THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION 2024

033/2A

BIOLOGY 2A
(ACTUAL PRACTICAL A)

03 HOURS ADVANCE INSTRUCTIONS

1.0 IMPORTANT

1.1 GREAT CARE MUST BE TAKEN NOT TO DIVULGE THESE INSTRUCTIONS TO BOTH CANDIDATES AND UNAUTHORIZED PERSONS EITHER DIRECTLY OR INDIRECTLY.

1.2 MAKE SURE THAT THE CANDIDATES ARE PROVIDED WITH THE SPECIMENS AND APPARATI INDICATED IN THESE PRACTICAL ADVANCE INSTRUCTIONS ONLY AND NOT OTHERWISE.

2.0 PREPARATION OF WATER

Use a pot to prepare boiling water before the commencement of the examination. Arrange in such a way that 1 boiling point can be shared by 4 candidates.

3.0 LABELLING OF THE SPECIMENS

- | | | |
|-----|--|---|
| (a) | Simple green leaf (1 per candidate)..... | X |
| (b) | Hibiscus branch with leaves and flower (1 for 4 candidates)..... | S |
| (c) | Mature moss plant (1 per candidate)..... | T |
| (d) | A piece of bread with mould (1 per candidate)..... | U |
| (e) | Pine branch with cones (1 for 4 candidates)..... | V |

4.0 CHEMICALS

Prepare the following chemicals for each candidate:

- (a) 20 ml of methylated spirit
- (b) 5 ml iodine solution
- (c) Source of rain/ tap water

5.0 APPARATI

- (a) 1 beaker (200 - 300 ml)
- (b) 1 dropper with measurements
- (c) 4 watch glasses
- (d) 1 knife/scalpel
- (e) 2 test tubes
- (f) 1 test tube rack

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- (g) 1 Bunsen burner/source of heat
- (h) 1 hand lens
- (i) 1 forceps
- (j) 1 pair of gloves
- (d) 1 wire gauze
- (e) 1 tripod stand
- (f) 1 white tile

6.0 NOTE TO EXAMINATION SUPERVISOR AND LABORATORY TECHNICIAN/APPOINTED BIOLOGY TEACHER

After the arrangement of the laboratory for the examination, the laboratory Technician/Biology teacher assigned the responsibility to arrange the laboratory must fill in the attached declaration form in page 3. The form indicates the quantity provided to each candidate and the labels used for the specimens and chemicals as indicated in the **03 Hours Advance Instructions**. The form must be filled at the beginning of each session of the examination and submitted to the Council enclosed together with the candidates' scripts in the last envelope of the final session.