

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

NOVEMBER 2013

033/2B

BIOLOGY 2B
(ACTUAL PRACTICAL B)

24 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 SPECIMENS, CHEMICALS AND APPARATI INDICATED IN THIS ADVANCED INSTRUCTION ONLY AND NOT OTHERWISE.
- 1.3 PLEASE DO NOT OPEN THE ENVELOPE CONTAINING THE QUESTION PAPERS 24 HOURS BEFORE THE TIME OF COMMENCEMENT OF THE EXAMINATION.

2.0 LABELS FOR THE SPECIMENS AND REAGENTS

2.1 Labelling of the specimens

- (a) A piece of cassava ----- S₁
- (b) Castor seeds (4)----- S₂
- (c) Cactus stem----- K₁
- (d) Fern plant with all parts intact----- K₂
- (e) Housefly----- X₁
- (f) Bee----- X₂

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2.2 Labels for the chemicals

Prepare fresh solutions of the following, label them as such and provide as bench reagents:

- (a) Benedict's solution
- (b) Dilute sodium hydroxide solution
- (c) Iodine solution
- (d) Dilute Hydrochloric acid
- (e) A white piece of paper.

3.0 APPARATI

Provide each candidate with all the apparati listed in the first advance instructions sent to you earlier.