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

NOVEMBER 2018

33/2A

BIOLOGY 2A (ACTUAL PRACTICAL A) 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 THE SPECIMENS, CHEMICALS AND APPARATI INDICATED IN THESE ADVANCE INSTRUCTIONS 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 SPECIMENS AND REAGENTS

2.1 Labelling of the specimens

Label the following specimens as follows:

- | | | |
|--------------------|-------|----------|
| (a) Orange fruits | ----- | X |
| (b) Maize seedling | ----- | C |
| (c) Bread mould | ----- | D |
| (d) Grasshopper | ----- | F |

2.2 Labelling of the reagents

Prepare fresh solutions of the following, label them by their names and provide them as bench reagents.

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- (a) Iodine solution
- (b) Benedict's solution
- (c) 1% CuSO_4 solution
- (d) Sodium hydroxide solution.

3.0 APPARATI

Provide each candidate with the following apparati:

- (a) 2 test tubes
- (b) 1 test tube rack
- (c) 1 test tube holder
- (d) 1 test tube brush
- (e) 1 source of heat (Bunsen burner)
- (f) 1 pipette/dropper
- (g) 1 knife
- (h) 4 watch glasses
- (i) 1 beaker.