

**THE PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
IRAMBA DISTRICT COUNCIL
FORM FOUR PRE-NATIONAL EXAMINATION
BIOLOGY 2A**

033/2A

2023

3 HOURS ADVANCED INSTRUCTIONS

1. IMPORTANCE

- i. GREAT CARE MUST BE TAKEN NOT TO DIVULGE THOSE INSTRUCTION TO BOTH CANDIDATES AND UNAUTHORIZED PERSON EITHER DIRECTLY OR INDIRECTLY**
- ii. MAKE SURE THAT, THE CANDIDATE IS PROVIDED WITH THE SPECIMENS, CHEMICALS AND APPARATUS INDICATED IN THIS ADVANCE INSTRUCTION ONLY AND NOT OTHERWISE**
- iii. PLEASE DO NOT OPEN THE ENVELOPE CONTAINING THE QUESTION PAPER, 3 HOURS BEFORE THE TIME OF COMMENCEMENT OF THE EXAMINATION**

1. Preparation of solution

Provide the following requirement for the preparation of solution

- i. Onion bulb Q (01 per candidate)
- ii. Specimen
 - V –housefly 1 per 3 candidates
 - W – bread mould – 1 per 3 candidates
 - X– pine branch - 1 per 3 candidates
 - Y – mushroom – 1 per 3 candidates
 - Z – variegated leaf- 1 per 3 candidates
- iii. Chemicals/reagents
 - 1. Iodine solution
 - 2. NaOH solution
 - 3. Copper II sulphate solution (1 %)
 - 4. Sudan III solution
 - 5. Benedicts solution
 - 6. Dil. HCL
- iv. Apparatus
 - 1. Knife – 1 per candidate
 - 2. Sieve – 1 per candidate
 - 3. Beaker – 03 per candidate
 - 4. Test tube – 05 per candidate
 - 5. Test tube – 1 per candidate
 - 6. Test tube holds – 1 per candidate
 - 7. Since or heat – 1 per candidate
 - 8. Test tube brush – 1 per candidate
 - 9. Mortar / Pestle – 1 per candidate
- v. The requirements
 - i. Source of heat – 1 per 3 candidates
 - ii. Dil. HCL / rain water – 15 cm³ per candidate