

BIOLOGY III

013

04/08/ 2023 08.30 AM – 10:00 AM



ADVANCED LEVEL NATIONAL EXAMINATIONS, 2022-2023

SUBJECT: BIOLOGY III

PRACTICAL EXAM

DURATION: 1 Hour 30 minutes

Marks:

/20

COMBINATIONS:

- **BIOLOGY-CHEMISTRY-GEOGRAPHY (BCG)**
- **MATHEMATICS-CHEMISTRY-BIOLOGY (MCB)**
- **PHYSICS-CHEMISTRY-BIOLOGY (MCB)**

INSTRUCTIONS:

- 1) Write your names and index number on the answer booklet cover in the space provided as written on your registration form and **DO NOT** write your names and index number on additional answer sheets of paper if provided.
- 2) Do not open this question paper until you are told to do so.
- 3) All answers should be written in the answer booklets provided.
- 4) Use **blue** or **black** pen.

1. The table below shows results obtained from an investigation carried out on a fresh water plant. The plant was placed under water which had its CO₂ concentration varied as a number of bubbles of oxygen evolved per minute by the plant, and was observed and recorded. The experiment was carried out under sunlight at 25°C.

CO₂ concentration % by volume	Number of bubbles per minute
0.00	0
0.02	04
0.08	20
0.14	24
0.18	24

- a) What was the aim of the experiment? **(1 mark)**
- b) In the space provided, draw a graph to represent the information in the table above. **(6 marks)**
- c) Using the information in table above explain the observations:
- (i) CO₂ concentration of 0.00 **(3 marks)**
- (ii) Between the CO₂ concentration of 0.02 and 0.18 **(8 marks)**
- d) Suggest an explanation for what would be observed in the experiment if the:
- (i) CO₂ concentration was increased to 0.20 **(1 mark)**
- (ii) The temperature was lowered to 5°C. **(1 mark)**

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