

Question 1

[10]

Set up and conduct an experiment to investigate the effect of carbon dioxide concentration on the rate of photosynthesis using plant sample **P-1**.

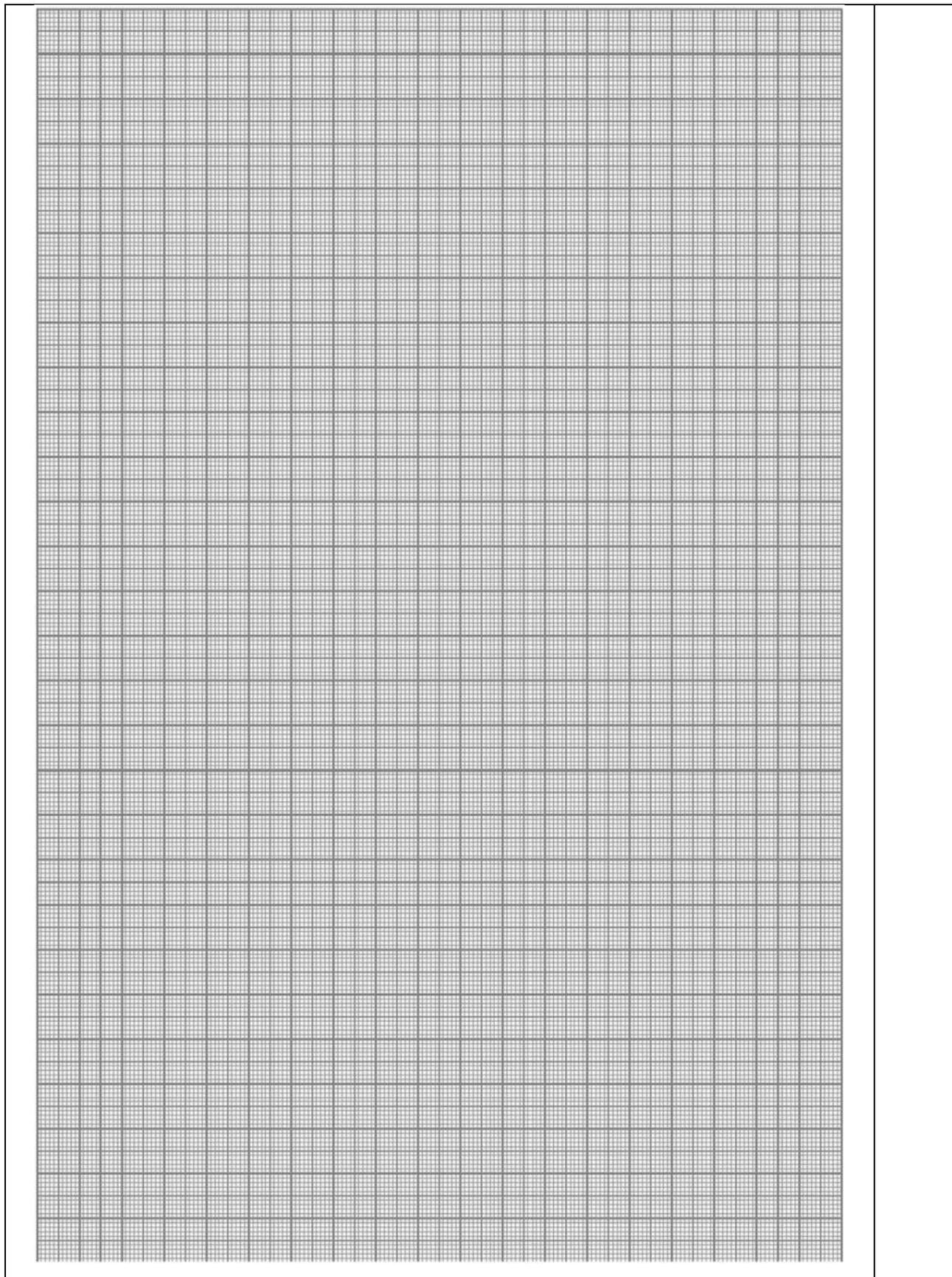
- i. Show the initial experimental setup to the **Visiting Examiner**.
- ii. Identify independent and dependent variables for the experiment.

- iii. Formulate the research question for the experiment.

- iv. Draw a table and record at least **FOUR** observations from the experiment.

--	--

- v. Plot a graph showing the relationship between the number of bubbles and the concentration of NaHCO_3 using the observation table.



- vi. Why is it important to keep light intensity and temperature constant when investigating the effect of CO₂ concentration on the rate of photosynthesis?

Question 2a

You will be given three minutes to examine each of the specimens: **A** and **B**. After examining specimens, return to your working table to complete the remaining tasks. For each specimen, write its name and provide **TWO** supporting reasons for your identification. Additionally, for specimen **B**, state **ONE** function of the part indicated by letter **X** in the model.

[4]

Specimen A:	
Reasons:	
Specimen B:	
Reasons:	

Part X:	
Function:	

Question 2b

Study the specimen **F-1** carefully and answer the questions that follow.

[6]

- i. Observe specimen **F-1**. Describe the sepals and petals in semi-technical terms.

Sepal	Petal	

- ii. Take the specimen **F-1** and remove the sepals with the help of forceps. Next remove the corolla and arrange them in sequence on the blotting paper and *show it to the Visiting Examiner*.
- iii. Draw floral diagram of the corolla.

--	--

iv. Describe the androecium and gynoecium of the specimen **F-1** in the following order.

Androecium		
1. No. of stamens		
2. Cohesion of stamens		
3. Attachment of anther to the filament		
Gynoecium		
1. No. of carpels		
2. Position of ovary		
3. Placentation		

v. Write the floral formula of the specimen **F-1**.

vi. Identify the family of specimen **F-1**. Give **TWO** reasons for your identification.

Rough Work

