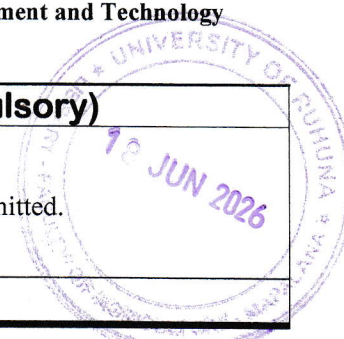




CC12101 Basic Technical Writing (Non-GPA) (Compulsory)		
Paper info.	Theory (Part I) Total number of Questions: 4 Number of Pages: ③	INSTRUCTIONS Answer all questions. Only non-programmable calculators are permitted. Mobile phones are NOT permitted.
Duration	2 (two) Hours	
Index No.		Date: June 18, 2026

1. Read the given passage and answer the following questions. (25 marks)

Climate change is one of the most significant challenges facing agriculture today. It refers to long-term changes in temperature, rainfall patterns, and other weather conditions resulting largely due to human activities such as the burning of fossil fuels and deforestation. These changes can have major impacts on crop production, livestock farming, and food security.

One of the most noticeable effects of climate change is the increase in average global temperatures. Higher temperatures can reduce the growth and yield of many crops, especially when heat stress occurs during critical growth stages such as flowering and grain filling. In addition, warmer conditions may increase the spread of pests and diseases, causing further losses in agricultural production.

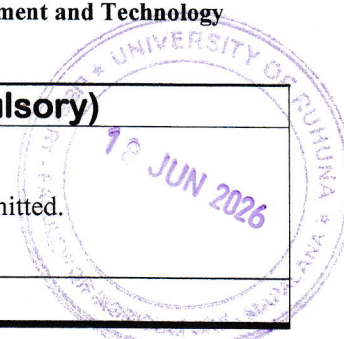
Changes in rainfall patterns also affect farming systems. Some regions experience prolonged droughts, while others face intense rainfall and flooding. Drought can limit water availability for crops and livestock, whereas excessive rainfall can lead to soil erosion, nutrient loss, and damage to agricultural infrastructure. Unpredictable weather conditions make it difficult for farmers to plan planting and harvesting activities.

Climate change can also influence livestock production. Heat stress may reduce feed intake, growth rate, milk production, and reproductive performance of animals. Furthermore, changes in the availability and quality of forage can affect animal health and productivity.

To address these challenges, farmers and agricultural scientists are adopting climate-smart agricultural practices. These include the use of drought-tolerant crop varieties, efficient irrigation systems, improved soil management, and integrated pest management. Such approaches help increase resilience to climate change while maintaining agricultural productivity.

In conclusion, climate change poses serious risks to agricultural systems worldwide. Understanding its impacts and implementing appropriate adaptation measures are essential for ensuring sustainable food production and food security for future generations.

- I. Write a suitable title for the passage. **(4 marks)**
- II. State the main idea of this passage in one sentence. **(4 marks)**
- III. List four supporting points used by the author to develop the main idea. **(4 marks)**
- IV. What relationship does the author establish between climate change and food security? **(4 marks)**
- V. Which paragraph provides information on adaptation measures? Briefly state the key message of that paragraph. **(5 marks)**
- VI. Why do changing rainfall patterns make farming systems vulnerable? **(4 marks)**



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2. Answer the following questions using the data given in the table in part I) and the bar chart in part II).

- I. The following table shows how vitamin C content of a fruit is changed during storage at three different temperatures.

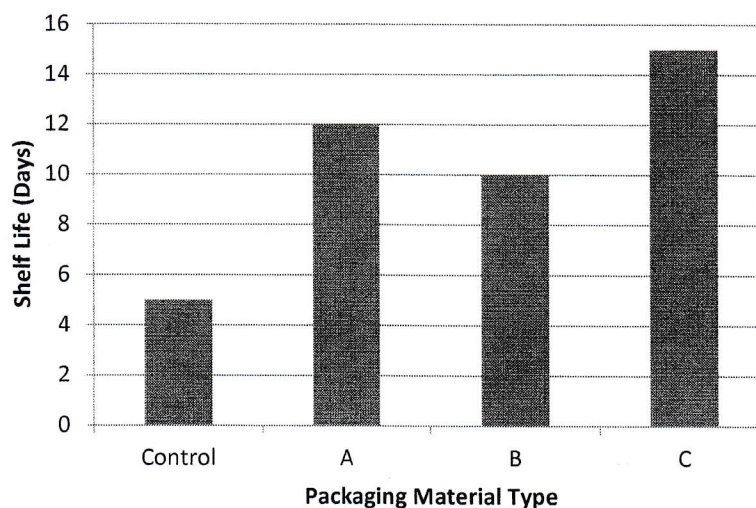
Storage temperature (°C)	Vitamin C content (mg/100 g)		
	Day 0	Day 5	Day 10
5	95	90	85
10	95	75	60
30	95	50	25

Based on the table above, write a short paragraph (approximately 100 - 150 words) interpreting the data above. **(15 marks)**

Your response should:

- Identify and describe the trends.
- Comment on the vitamin C retention% during storage.
- Suggest possible reasons for the observed trends in data.
- Maintain clarity, structure, and a formal technical tone.

- II. The following bar chart presents the data related to a storage study that was carried out to check the effect of three types of packaging materials (A, B, and C) on the shelf life of the packed food.



Compare the effectiveness of packaging materials and write a short paragraph, interpreting the given data in the chart. **(10 marks)**

3. You are assigned to write a technical report on "**Sustainable Agricultural Practices.**"

I. Draw a simple **mind map** showing at least **five major aspects** that should be included in the report. **(10 Marks)**

II. Convert your mind map into a logical **outline** using headings and subheadings. **(5 Marks)**

III. **Read** the following sentences and **underline** the technical writing weakness(es) in each sentence. **Comment** briefly on why the sentence is not technically sound **(10 Marks)**

- a. The application of a suitable amount of fertilizer significantly improved crop growth.
- b. Most farmers obtained very high yields after using the new cultivation method.
- c. The plants were treated regularly, and they performed better than the others.
- d. Rice production increased because the weather was favorable and other factors helped.
- e. The biofertilizer was highly effective and produced excellent results in the field.

4. Reading Passage *

Climate change is increasingly recognized as one of the major challenges facing agricultural systems worldwide. Changes in environmental conditions can influence the way animals grow, reproduce, and interact with their surroundings. Livestock producers are therefore required to pay greater attention to animal management and welfare to maintain sustainable production systems. Understanding these challenges is important for developing effective approaches that support both productivity and resilience in the livestock sector.

**Read the paragraph, refer to your last lecture and common understanding.*

Answer to All Questions

I. **Define** climate change. **(3 Marks)**

II. **List** three (3) possible ways in which climate change may influence livestock production. **(3 Marks)**

III. **Explain** how environmental changes can affect livestock productivity. **(6 Marks)**

IV. **Describe** the potential effects of climate change on animal health and welfare. **(3 Marks)**

V. **Compare** livestock production under favorable environmental conditions with production under challenging environmental conditions. **(6 Marks)**

VI. **Explain** two (2) management strategies that can help livestock producers adapt to climate-related challenges. **(4 Marks)**