

First semester exam of Scientific English **(correction)**

I. Reading comprehension (8 pts)

A. Answer in complete sentences.

1. Modified Atmosphere Packaging is a technique in which air inside a package is replaced by a controlled mixture of gases to preserve food.
2. Carbon dioxide is used because it inhibits bacterial growth.
3. Oxygen can cause oxidation and spoilage.
4. The cold chain is important because without low temperature microbial growth may increase.

B. Find words in the text corresponding to these definitions.

- A. inhibit** = stop / reduce
B. shelf life = period a food remains safe and usable
C. spoilage = deterioration of food
D. stability = resistance to change

C. True or False and Justify the false sentence

1. True
2. False
3. False
4. True

II. Grammar (6 pts)

A. Rewrite in the scientific passive.

1. The gas composition is controlled by technicians.
2. Oxidation is accelerated by oxygen.
3. The samples are analyzed by researchers.

B. Verb Tenses

1. grow
2. is measuring
3. were stored

C. Comparatives & Superlatives

1. more effective
2. most reactive
3. safest

D. Linking Words

1. consequently
2. however

III. Scientific writing (6 pts)

A. Process Description – Model Answer

First, the milk is pasteurized at high temperature to destroy microorganisms. Then it is cooled and packaged in sterile containers. Finally, the milk is stored under refrigeration to prevent bacterial growth. This process may improve safety and quality. Pasteurization is essential because harmful bacteria are removed, while refrigeration slows down microbial activity. The results suggest that proper processing extends shelf life.

(Any coherent paragraph with correct passive, sequencing and hedging is accepted.)

B. Data Interpretation

1. significantly
2. slightly
3. sharply

C. Scientific Opinion – Model Answer

Packaging is essential for food safety because microorganisms are prevented from entering the product. However, packaging alone may not be enough. In my opinion, food must also be stored at low temperature. The results suggest that safe packaging reduces contamination and improves shelf life.