

Examination

<i>Food Technology</i>

Section	Part	Question
III	1	28

Date

<i>10. 11. 11</i>

Number of booklets
used for this question

<i>1</i>

Instructions

- Write your Centre Number and Student Number at the top of this page.
- In the boxes provided write the name and date of this examination, and the number(s) of the question(s) attempted in this booklet.
- If you have not attempted the question, you must still hand in the Writing Booklet, with the words 'NOT ATTEMPTED' written clearly on the front cover.
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Start here.

Q28

(a) Fruit spoilage can be a result of rough handling causing bruising and breakage. Also, when fruit becomes ripe it produces ethylene gas which speeds up the ripening process for fruits around it. This is especially seen in bananas.

Fruit flies also cause fruit to deteriorate faster and after fruit flies, or bats consume the fruit, the fruit is unable for human consumption.

Finally, when fruit is exposed it oxidises which eventually leads to rancidity, meaning the fruit is no longer consumable.

(b) A preserved fruit needs specific labelling requirements to inform the consumer of its date of package and the additives contained.

Firstly, the labelling of any fruit product must include the product name, company name, date of expiry, a brief description of the product, ingredients, bar code and a brand name.

For a preserved fruit product, the label must be especially detailed in the ingredients. All additives used to preserve the fruit must be listed in the number code system. An example of an additive is

antioxidants, which prevent the oxidation of the fruit and the subsequent rancidity of it.

The ~~pack~~ label of the fruit must also include the date it was first preserved so that consumers know how old the fruit is.

(c) To extend the shelf life of fruit, the manufacturer of the product may use the canning or fermentation preservation process.

Canning appears to be the most effective preservation process as the food within the can, can stay good for a number of years. In the canning process, the food is heated to ultra high temperatures, this eliminates all signs of microbial growth as the food is outside the bacterial danger zone. The fruit is then placed in a sterile can to further the elimination of the bacteria. The can is sealed air-tight so that no bacteria can enter the can. The use of canning eliminates all traces of bacteria which is ideal because bacteria will cause the ~~fruit~~^{fruit} to deteriorate and even become poisonous for human consumption.

Fermentation is another preservation process that can be used to extend the shelf life of fruit.

Fermentation involves the adding of a chemical to ferment the fruit. The most common ~~to~~ case of

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fermentation is seen in wine which incorporates lactic acid bacteria to extend the shelf life of the fruit. They will be able to last for a number of years.

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