

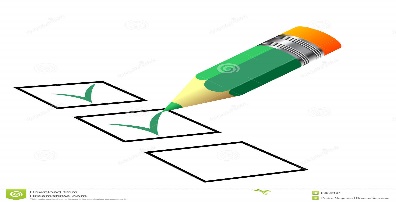
**Province of the**

**EASTERN CAPE**

**DEPARTMENT OF EDUCATION**

**CONSUMER STUDIES GRADE 10 TERM 2 WEEK 1**

**FOOD SPOILAGE MARKING GUIDELINES**



**QUESTION 1**

* 1. 1. **Food spoilage**

|  |
| --- |
| * Food spoilage occurs when the original nutritional value, texture, flavour or appearance ✓of the food is damaged or changed.✓ |

(2)

* + 1. **Pathogenic micro-organisms**

|  |
| --- |
| * Are microorganisms that cause illness✓ |

(1)

* + 1. **Oxidation**

|  |
| --- |
| * Chemical reaction✓that takes place between food and oxygen in the air. ✓ |

(2)

(5)

1.2

1.2.1 Mould ✓

1.2.2 Bacteria (Aflatoxin) ✓

1.2.3 Yeast ✓

1.2.4 Bacteria✓ (4)

1.3

1.3.1 B✓

1.3.2 E✓

1.3.3 A✓

1.3.4 C✓ (4)

**[13]**

**QUESTION 2**

**Food**✓

* Bacteria grow best in protein- rich food while moulds and yeast grow best on carbohydrates. ✓
* Meat, poultry, seafood, milk and milk products, rice and eggs are called potentially hazardous foods because they are most likely to carry pathogenic organisms. This is because of their high protein and liquid content, and their neutral pH. ✓

**Acidity (pH)** ✓

* pH is the measure of the acidity or alkalinity of a food. ✓
* Most bacteria grow best in an environment that is neutral or slightly acidic. ✓
* Fresh foods tend to have a neutral pH. ✓

**Temperature**✓

* Microorganism grows fast and produce toxins between the temperatures of 50C and 60 0 C. This is **danger zone.** ✓

**Time** ✓

* Microorganisms need time to grow. ✓
* When potentially hazardous food is placed in the danger zone for longer than two hours, pathogens multiply rapidly. ✓

**Oxygen**✓

* Microorganism need oxygen to grow-Aerobic organism. ✓
* Anaerobic micro-organisms only grow in the absence of oxygen. ✓

**Moisture** ✓

* Microorganism need water to grow and multiply✓
* Some microorganism can survive when there is little water, but they are not able to grow very well✓ (Any 7) (7)

**[20]**