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<b><u>PROGRAM</u></b>	BACCALAUREUS TECHNOLOGIAE <i>FOOD TECHNOLOGY</i>
<b><u>SUBJECT</u></b>	<b>FOOD MICROBIAL ASSURANCE 4</b>
<b><u>CODE</u></b>	<b>FTN1BM4</b>
<b><u>DATE</u></b>	SUPPLEMENTARY EXAMINATION 8 <sup>TH</sup> JANUARY 2019
<b><u>DURATION</u></b>	3 HOURS
<b><u>MARKS (TOTAL)</u></b>	100
<b><u>MARKS (100%)</u></b>	100
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<b><u>EXAMINER</u></b>	PROF. P. NJOBEH
<b><u>INTERNAL MODERATOR</u></b>	DR. B.C. DLAMINI
<b><u>EXTERNAL MODERATOR</u></b>	PROF. F. TABIT
<b><u>NUMBER OF PAGES</u></b>	2 PAGES
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**INSTRUCTIONS TO CANDIDATES:**

1. Please answer ALL the questions.
  2. ALL questions MUST be answered in the answer book provided.
  3. Questions may be answered in any order, but subsections of questions must be answered together.
  4. Number your answers CLEARLY and CORRECTLY.
  5. Marks will be deducted for untidy and illegible handwriting.
  6. Question papers MUST be handed in.
  7. Good luck!
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### QUESTION 1

An entrepreneur in Mpumalanga intends setting up a small scale cheese processing company and has come to consult you on relevant food safety management systems to adopt.

- 1.1 Describe the **global food safety initiative (GFSI)** and briefly discuss the benefits of adopting a GFSI recognized **food safety management system (FSMS)**. (15)
- 1.2 Both the **British Retail Consortium (BRC)** and **Safe Quality Food (SQF)** are globally recognized food safety standards that can be considered for implementation. Write short notes on the benefits of implementing and certifying against each of these standards. (15)

[30]

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### QUESTION 2

The prerequisite programmes (PRPs) are certified against ISO/TS 22002-1:2009

- 2.1 Outline section 11 **cleaning and sanitizing** requirements of ISO/TS 22002-1:2009. Provide practical examples of measures the company could adopt. (10)
- 2.2 ISO/TS 22002-1: 2009 section 10 deals with **measures for the prevention of cross contamination**. Summarize these requirements and the documentation required to comply with the requirements. (10)
- 2.3 ISO/TS 22002-1: 2009 section 12 deals with pest control. PRPs for the management and control of pests must be in place, supported by **preventing access** of pests. Suggest practical measures that can be introduced to limit access of rodents to the manufacturing plant. (15)

[35]

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### QUESTION 3

A risk-based approach is essential for the management of health hazards in food. Discuss each of the following concepts:

- |                        |      |
|------------------------|------|
| (a) Risk Analysis      | (10) |
| (b) Risk Assessment    | (10) |
| (c) Risk Management    | (10) |
| (d) Risk Communication | (5)  |

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**TOTAL: 100**  
**100%: 100**