



<b><u>PROGRAM</u></b>	BACCALAUREUS TECHNOLOGIAE FOOD TECHNOLOGY
<b><u>SUBJECT</u></b>	FOOD PRODUCT DEVELOPMENT 4
<b><u>CODE</u></b>	FTN1AD4
<b><u>DATE</u></b>	WINTER EXAMINATION 26 MAY 2018
<b><u>DURATION</u></b>	08:30 – 11:30
<b><u>MARKS (TOTAL)</u></b>	170
<b><u>MARKS (100%)</u></b>	170
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<b><u>EXAMINER</u></b>	MR O.A. ADEBO
<b><u>INTERNAL MODERATOR</u></b>	DR. S. DE KOCK
<b><u>EXTERNAL MODERATOR</u></b>	PROF. H.L. DE KOCK
<b><u>NUMBER OF PAGES</u></b>	3 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. SHOW all your calculations.
  6. Marks will be deducted for untidy and illegible handwriting.
  7. Question papers MUST be handed in.
  8. Good luck!
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### QUESTION 1

As part of the Food Product Development Section in Witness Bakeries, demonstrate your knowledge of food product development by answering the following questions:

- 1.1 How would you describe “a new food product”? Accordingly classify and discuss the categories of new food products. (15)
- 1.2 While some of your colleagues at Witness Bakeries believe Food product development is a basic and continuous activity, some others presume it is the only path for a company’s survival. Elaborate more on this by discussing the reasons for new food product development. (20)
- 1.3 It was observed that consumers are responding differently to new baked products launched into the market. Using the consumer adoption curve, explain this observation to your team. (20)

**[55]**

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### QUESTION 2

- 2.1 The marketing department has issued you a **project brief** for a Beef Lasagne product. After “getting the feel” you prepare a number of prototypes and selected the final **prototype** based on sensory evaluation. Describe the process you follow to achieve this. (15)
- 2.2 Describe the criteria the final product formulation must fulfil and the problems that might have been encountered during the scale-up process. (15)

**[30]**

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### QUESTION 3

- 3.1 From your knowledge of project management and planning, define “a project” and “project management”. Also highlight the characteristics of a project. (8)
- 3.2 Conceptualization, Designing, Implementation and Project Closure are the Four (4) basic phases of a project. Discuss this with respect to a new food product you propose to introduce to the market. (20)
- 3.3 Describe the work breakdown structure (WBS) as a tool for project planning. Accordingly, describe the different types of WBS. (7)

**[35]**

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### QUESTION 4

- 4.1 Highlight the uses of PERT and CPA network techniques. Also describe their respective features. (15)
- 4.2 Given the parameters and activities provided in the table below:

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Beginning event	End event	Activity	t	m	b
1	2	1-2	4	5	3
1	3	1-3	5	4	8
2	4	2-4	4	4	5
3	4	3-4	5	6	5

Where:

t = expected time of activity completion (min)

m = most likely time for activity completion (min)

b = pessimistic time for activity completion (min)

- i. Draw a properly labeled network diagram. (2)
- ii. Determine the optimistic time for completing the activity (**a**) and the variance of activity completion time (**v**). (13)

**[30]**

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### QUESTION 5

- 5.1 The project brief of a new product in your company states that “it must contain a novel ingredient to reduce the sugar levels, but still impart a rich, sweet mouthfeel”. Your company wants to protect the **intellectual property (IP)** associated with the product prior to launch of the product. Define IP and provide a synopsis of the options available to the company to protect the product IP. (10)
- 5.2 Your company has also decided to keep the formulation and process of another product in the product mix, as a trade secret. Explain the term “trade secret” and describe reasonable steps that are required to keep this trade secret confidential. (10)

**[20]**

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**TOTAL: 170**  
**100%: 170**