



## Question Paper

<b>Module 5:</b>	<b>Flour</b>	
Date: <b>14 May 2019</b>	Time: <b>09:30 – 12:00</b>	Duration: <b>2½ hours</b>

You should have the following for this examination: **answer book, pencil, pen and ruler.**

All questions carry equal marks. The maximum marks for each section within a question are shown. Answer **ALL SEVEN** questions, starting each new question (1-7) on a **new** page of the answer book.

1.
  - a) State who is the ultimate judge of flour quality. (1 mark)
  - b) State the approximate percentage (%) of saleable co-products produced by a flour mill. (1 mark)
  - c) In a mill where flour streams are collected into three conveyors, name the flour streams for EACH conveyor. (6 marks)
  - d) Explain why it is critical that realistic flour specifications are agreed with the customer. (4 marks)
  
2.
  - a) Describe the factors that need to be considered when setting up a testing regime for a flour mill site. (6 marks)
  - b) Describe the factors that could produce high mycotoxin levels in wheat. (3 marks)
  - c) Describe briefly why and how a crude fibre test is carried out. (3 marks)
  
3. Explain the significance of SIX different quality tests that may be carried out on wheat intake. (12 marks)
  
4.
  - a) Describe briefly SIX key factors that make flour a complex ingredient. (6 marks)
  - b) Explain why ash content is not widely used in the UK for analysis of purity. (2 marks)
  - c) Describe briefly the operation of a scanning Near Infra-Red (NIR) machine. (4 marks)

*continued overleaf*

5. a) Name TWO tests for protein quality. (2 marks)
- b) Describe briefly all FOUR measurements provided by an alveograph. (4 marks)
- c) Describe the characteristics of good breadmaking flour. (6 marks)
6. a) i) List the FOUR stages of the breadmaking process. (2 marks)
- ii) Describe one of the stages in detail. (4 marks)
- b) List TWO examples of enriched fermented products. (2 marks)
- c) List TWO causes of a loaf of bread being too large. (2 marks)
- d) List FOUR reasons for internal coarse texture in bread. (2 marks)
7. a) Describe briefly the flour and process used for manufacturing bagels. (3 marks)
- b) Describe briefly why short-dough biscuits do not have a developed gluten network. (3 marks)
- c) Describe:
- i) a chapatti; (1 mark)
- ii) a tortilla. (1 mark)
- d) In the form of a table, list the ingredients and % by flour weight of sweet short pastry and savoury short pastry. (4 marks)