



UK FLOUR
MILLERS

Question Paper

Module 5:	Flour	
Date: 11 May 2021	Time: 09:30 – 12:00	Duration: 2½ hours

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) Describe the information a wheat sample's appearance can give you. (3 marks)
 - b) Describe TWO factors that affect protein content in wheat. (3 marks)
 - c) Outline the key reasons why flour stream analysis is carried out. (3 marks)
 - d) List the FOUR nutrients required to be present in bread flours, as stated in the UK's Bread and Flour Regulations. (2 marks)
 - e) State the percentage of co-products produced at a typical mill. (1 mark)

2.
 - a) With the aid of a sketch, describe a normal distribution curve. (2 marks)
 - b) Describe the relationship between product specification and process capability. (2 marks)
 - c) Explain why benchmarking and monitoring are carried out in a laboratory. (3 marks)
 - d) Describe the factors that determine a site testing regime. (5 marks)

3.
 - a) Define the term 'liquefaction number'. (2 marks)
 - b) Explain the term 'starch damage' and its significance in the breadmaking process. (6 marks)
 - c) Describe the purpose of test baking. (4 marks)

continued overleaf

4. Explain how a combination of a Farinograph and Extensograph can be used to analyse the rheological properties of a bread flour. (12 marks)
5. a) State a typical water absorption of:
- i) Biscuit flour; (1 mark)
 - ii) Bread flour. (1 mark)
- b) Describe how a crude fibre test is carried out. (4 marks)
- c) Explain the use of soya flour in the baking process. (2 marks)
- d) Describe why oxidants may be added to breadmaking flour. (3 marks)
- e) State the main oxidising improver used in the UK. (1 mark)
6. a) List the FOUR main stages of breadmaking. (2 marks)
- b) Describe fully the baking process of bread. (8 marks)
- c) Describe the effects of bran powder in breadmaking flour. (2 marks)
7. a) List the FOUR types of biscuits made in the UK. (2 marks)
- b) Describe briefly the TWO main types of pizza produced in the UK. (2 marks)
- c) State the typical protein content of a bagel flour. (1 mark)
- d) List the TWO chemical ingredients that are added to a soda bread dough. (2 marks)
- e) In the form of a table, show a typical puff pastry recipe. (5 marks)