



Question Paper

Module 5:	Flour	
Date: 10 May 2016	Time: 09:30 – 12:00	Duration: 2½ hours

You should have the following for this examination: **one 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 briefly how brown flour is made. (2 marks)
 - b) State a typical extraction rate for brown flour. (1 mark)
 - c) State who is responsible for quality. (1 mark)
 - d) Explain how to interpret test results and why it is important to do so correctly. (8 marks)

2.
 - a) List the THREE main enzymes produced by yeast. (3 marks)
 - b) List THREE benefits of using emulsifiers in baked products. (3 marks)
 - c) List and describe briefly the SIX stages in the calculation of a cumulative ash curve. (6 marks)

3.
 - a) List TWO tests for protein quality. (2 marks)
 - b) State how protein quality can be damaged. (1 mark)
 - c) State why protein quality is significant. (1 mark)
 - d) Describe a pekar test and what it can measure. (4 marks)
 - e) Describe how test bakes are conducted and what test bakes measure. (4 marks)

4.
 - a) Describe in full how to conduct an Extensograph test. (10 marks)
 - b) State typical resistance and extensibility values for a biscuit flour. (2 marks)

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5. a) State TWO reasons why mycotoxins in wheat are measured. (2 marks)
- b) State what the Chittick test measures. (1 mark)
- c) State what affects the level of fibre in flour. (1 mark)
- d) Describe the Hagberg Falling Number test for wheat, and state what it measures. (5 marks)
- e) Describe briefly the measurements that can be made with a TAXT-2 Texture analyser. (3 marks)
6. a) List FOUR advantages of the Chorleywood bread process compared to the Bulk Fermentation process. (4 marks)
- b) State the effect on baking quality of too much bran powder in the flour. (2 marks)
- c) State the effect of baking with too much steam. (1 mark)
- d) Describe how protein is distributed through the wheat grain and the effect this has on the baking quality of breadmaking flour. (5 marks)
7. a) State the typical moisture for a baked biscuit. (1 mark)
- b) Describe briefly how wafer biscuits are made and the type of flour used in the process. (4 marks)
- c) List the ingredients and % weight for a sandwich sponge cake. (3 marks)
- d) Describe briefly what chapattis are and the type of flour used to make chapattis. (2 marks)
- e) State TWO reasons why puff pastry can have poor lift or shape. (2 marks)