



Question Paper

Module 4:	Product Handling, Storage and Distribution	
Date: 09 May 2016	Time: 09:30 – 11:30	Duration: 2 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 EIGHT** questions, starting each question (1-8) on a **new** page in the answer book.

1.
 - a) List **THREE** parameters which can be used to segregate wheats on intake. (3 marks)
 - b) Describe the **TWO** main methods used to exhaust storage bins. (3 marks)
 - c) Describe the **THREE** main types of mechanical discharger found on bin outlets. (6 marks)

2.
 - a)
 - i) List **FOUR** methods of bin contents monitoring. (4 marks)
 - ii) Outline **THREE** advantages for the bin contents monitoring method which is increasingly used with PLC control systems. (3 marks)
 - b) Describe briefly **FIVE** basic items within the modern batch blending system. (5 marks)

3.
 - a)
 - i) State the most widely used method of conveying flour to the packing plant. (1 mark)
 - ii) State **ONE** advantage and **ONE** disadvantage of this method. (2 marks)
 - b) With the aid of a simple block flow diagram, show the **NINE** steps in a typical packing process which follow the packing scale. (9 marks)

4.
 - a) List **SEVEN** main components of a packing machine for small bags. (7 marks)
 - b)
 - i) Describe the operation of a pallet inverter. (3 marks)
 - ii) State **TWO** tasks for which a pallet inverter may be used. (2 marks)

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5. a) List **THREE** methods of storing unit loads of flour in a warehouse. (3 marks)
- b) Describe **FOUR** storage requirement considerations when designing a warehouse. (8 marks)
- c) State **TWO** types of fork lift truck that may be used in a warehouse. (1 mark)
6. a) Describe **THREE** methods of stitching a flour bag. (6 marks)
- b) List the **THREE** different categories of Operator's licence. (3 marks)
- c) For **EACH** of the following types of chassis, state the maximum weight restriction imposed in the UK, in tonnes gross.
- i) 2 axle rigid (AW); (1 mark)
- ii) 4 axle rigid (AW); (1 mark)
- iii) 6 axle articulated (AW). (1 mark)
7. a) Outline **FOUR** delivery instructions a bulk flour tanker driver should receive from the customer on arrival. (4 marks)
- b) List **SIX** reasons why a customer may return goods. (6 marks)
- c) State **TWO** co-products that may be stored in a miller's warehouse. (2 marks)
8. a) Explain the following terms:
- i) Bait shyness; (2 marks)
- ii) Poison shyness. (2 marks)
- b) List **FOUR** types of rodenticide that may be used in and around the mill. (4 marks)
- c) Describe briefly **FOUR** records which should be kept to demonstrate the control of insect infestation. (4 marks)