



**PIABC LEVEL 5 DIPLOMA
IN PACKAGING TECHNOLOGY (QCF)**

(Qualification Number: 600/0017/X)

EXAMINATION PAPER

November 2017

L/502/5924 UNIT 03

Packaging Processes

Reading Time: 5 minutes

Time Allowed: 3 Hours

You are required to answer and pass ALL the learning outcomes

Write your answers in the answer book provided

Wherever possible, use diagrams to illustrate your answer

This is a closed book examination

PIABC Level 5 Diploma in Packaging Technology (QCF)
Unit 3 – Packaging Processes
November 2017

Learning Outcome 1
Understand the packaging design and development process
(This question is worth 20% of the marks for this unit)

Question 1

- A) A manufacturer is planning to launch a new fruit and nut cereal bar; briefly describe the information required to produce the packaging brief relative to each of the following headings:
- Eight relevant items of information about the product. (4 marks)
 - Eight relevant items of information about the market for the product. (4 marks)
 - Four relevant items of information about the storage and distribution system used. (2 marks)
- B) Identify SIX key departments involved in the launch and comment on their contribution to the packaging development process. (6 marks)
- C) In the design and development process; briefly describe TWO types of test programmes relative to the finished pack which need to be considered and why. (4 marks)

Learning Outcome 2
Understand the main printing and decoration processes used in packaging
(This question is worth 20% of the marks for this unit)

Question 2

- A) Discuss the factors which could lead to colours of a global brand appearing different to customers. (5 marks)
- B) Summarise the stages of the print preparation process for soft drink cans. (5 marks)
- C) Describe the process of printing metal cans for a soft drink product (8 marks) and how is this process influenced by the ink used (2 marks).

PIABC Level 5 Diploma in Packaging Technology (QCF)
Unit 3 – Packaging Processes
November 2017

Learning Outcome 3
Understand packaging machinery and packaging line operations
(These two questions are worth 40% of the marks for this unit)

Question 3

- A) Describe the packing line for packaging individually wrapped chocolate bars, which are sold in a multipack carton of six bars, from receipt of packaging materials to finished packed products ready for despatch. (14 marks)
- B) Discuss the factors which contribute to this line's overall equipment effectiveness (OEE) and for each factor provide an example how the OEE could be improved. (3 x 2 marks)

Question 4

- A) Describe and justify an appropriate method for ensuring that the required amount of product is placed into the following packs. Use a different system for each.
- Carbonated soft drink filled into glass bottle (3 marks)
 - Individual frozen prawns into bag (3 marks)
 - Talc powder into a container (3 marks)
- B) Describe, with the aid of a diagram, the operation of a vertical form fill seal packaging machine for packing 2.5 kg bags of potatoes. (11 marks)

Learning Outcome 4
Understand how quality systems impact on packaging
(This question is worth 20% of the marks for this unit)

Question 5

- A) Identify and discuss TEN core elements of a Quality Management System. (10 x 1 mark)
- B) Using a glass bottle as an example; explain the importance of a purchasing specification to the packer filler. (5 x 2 marks)