



PIABC LEVEL 3 CERTIFICATE IN PACKAGING (QCF)

(Qualification Number: 600/0455/1)

EXAMINATION PAPER

November 2017

R/502/5925 - UNIT A

The Fundamental Principles of Packaging

Reading Time: 5 minutes

Examination Time: 2 Hours

You are required to answer and pass **ALL** the questions

Write your answers in the answer book provided

Wherever possible, use diagrams to illustrate your answer

This is a closed book examination

PIABC Level 3 Certificate in Packaging (QCF)
Unit A – The Fundamental of Principles of Packaging
November 2017

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Learning Outcome 1
Understand the role and functions of packaging
(25 marks)

Question 1

- A) Define primary, secondary and tertiary packaging. (3 x 2 marks)
- B) List the typical primary (2 marks), secondary (3 marks) and tertiary (2 marks) packaging used to contain and transport a glass jar of sauce from the food manufacturer to the retailer.
- C) Identify THREE mechanical hazards that the complete pack may experience during its journey, describing the typical causes and explain how the packaging system minimises the effects. (3 x 4 marks)

Learning Outcome 2
Understand the major packaging materials and
how they are combined to form packaging components
(25 marks)

Question 2

Liquid soup with a long shelf life can be packed in glass and metal containers.

- A) Describe the two types of containers, closure mechanisms and how they are decorated. (2 x 3 marks)
- B) Identify the production processes involved to manufacture the packaging components (2 x 3 marks) and explain the functional characteristics of the materials used which make them suitable to pack the product. (2 x 3 marks)
- C) For **ONE** of the pack types, describe a typical secondary and tertiary packaging solution for this product. (7 marks)

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Learning Outcome 3
Understand the packaging development processes
(20 marks)

Question 3

- A) Using a product/pack of your choice, what sort of information would you need to consider to develop a product/packaging brief. (7 marks)
- B) List SIX key process steps involved in development of the packed product from initial concept to launch. (6 x ½ mark)
- C) Identify FIVE roles/disciplines which will be involved in developing new packaging (5 x ½ mark) and discuss the importance of each role in ensuring a successful product is launched (5 x 1½ marks).

Learning Outcome 4
Understand packaging costs and quality systems
(15 marks)

Question 4

- A) Describe FIVE business cost elements associated with the production of a packet of biscuits wrapped in a plastic flow wrap and collated in a case on a pallet (5 x 1½ marks) and state which are fixed and variable (5 x ½ mark).
- B) Define profit. (2 marks)
- C) How does unacceptable quality affect profit? (3 x 1 mark)

Learning Outcome 5
Understand the relationship between packaging and the environment
(15 marks)

Question 5

- A) Define what is meant by an environmentally responsible pack. (3 marks)
- B) Briefly describe THREE options that are available to deal with empty glass containers for carbonated beverages. (3 x 3 marks)
- C) Briefly describe ONE way of evaluating the environmental impact of a packaging material. (3 marks)