



# PIABC LEVEL 3 CERTIFICATE IN PACKAGING

(Qualification Number: 600/0455/1)

## EXAMINATION PAPER

**June 2018**

**R/502/5925 - UNIT A**

### The Fundamental Principles of Packaging

#### **Instructions to Candidates**

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

Reading Time: 5 minutes

Examination Time: 2 Hours

**PIABC Level 3 Certificate in Packaging**  
**Unit A – The Fundamental of Principles of Packaging**  
**June 2018**

YOU ARE REQUIRED TO ANSWER **ALL** THE QUESTIONS ON THIS PAPER

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

**Question 1**

- A) The primary pack for 750g of breakfast cereal is a polyethylene bag inside a printed paperboard carton. Discuss how this pack performs the functions of packaging. (13 marks)
- B) Describe **SIX** hazards that a consumer electronic product could face during distribution from the manufacturer to the retailer (6 x 1 mark). Discuss how the packaging can mitigate the potential damage to the product from these hazards (6 x 1 mark).

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

**Question 2**

A branded spirit is packed in 70cl glass bottle. The bottle is placed in a printed metal presentation tube and 6 packs are collated in a corrugated case.

- A) Describe **FIVE** significant characteristics of each of these materials in relation to this application. (3 x 5 marks)
- B) Identify **FIVE** other packaging components which would be used in the complete packaging system of this product (5 x ½ mark). Identify the material from which each packaging component is made (5 x ½ mark).
- C) Spirits may be sold in injection stretched blow moulded polyethylene terephthalate (PET) bottles. What are the characteristics of this material which make it acceptable for this application? (5 x 1 mark)

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

**Question 3**

- A) Outline the process of package development from concept to product launch. This is usually described in six steps. (6 x 1 mark)
- B) When developing the pack for a product:
- a) Discuss **FOUR** different types of information that must be known about the product. (4 x 2 marks)
  - b) Discuss **THREE** different types of information that must be known about the market. (3 x 2 marks)

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

**Question 4**

- A) Describe **FIVE** cost elements which a business incurs in the manufacture and sale of biscuits wrapped in a plastic flow wrap (5 x 1½ marks). State whether they are fixed or 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) For each of the following groups in society; discuss their different viewpoints with regards to environmental responsible packaging (12 marks):
- The public
  - Policymakers
  - Local government
  - Packaging suppliers
  - Retailers