



PIABC LEVEL 3 CERTIFICATE IN PACKAGING

(Qualification Number: 600/0455/1)

EXAMINATION PAPER

June 2019

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 2019

INSTRUCTIONS TO CANDIDATES

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 500g block of cheese is modified atmosphere packed on a flow wrap line with a printed flexible film. The pouch has a reclosure (zip) feature added during the process. The packaged blocks are collated into a shelf ready case. The finished cases are loaded onto a wooden pallet, stretch wrapped and labelled for transit.

For this pack:

- A) List SIX functions of packaging. (6 x ½ mark)
- B) Explain how the primary packaging performs these functions. (6 x 2 marks)
- C) Explain how the secondary packaging performs the basic functions (5 x 1½ marks) and why each one is important (5 x ½ mark).

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

Question 2

- Aa) Provide EIGHT different examples of packaging items or components with their associated product. (8 x ½ mark)
- b) For EACH example justify the material(s) used. (8 x 2 marks)
- B) Discuss the differences and similarities between polyethylene (PE) and polyethylene terephthalate (PET). (5 marks)

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

Question 3

- A) Using examples to illustrate your answer; discuss FOUR product related factors to be considered in developing a new pack. (4 x 2 marks)
- B) Using examples to illustrate your answer; discuss FOUR market related factors to be considered when developing a new pack. (4 x 2 marks)
- C) Identify FOUR roles/disciplines which will be involved in developing new packaging. Discuss the importance of each role in ensuring a successful product is launched. (4 x 1 mark)

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

Question 4

- A) Identify and briefly describe TEN costs of packing a product at a packer/filler. (10 x 1 mark)
- B) Briefly discuss FOUR types of quality costs that could be incurred by a business. (4 x 1 mark)
- C) If quality is defined as 'conformance to requirements', how do you communicate and agree these requirements with a supplier. (1 mark)

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

Question 5

- A) Identify and describe FOUR ways in which plastic packaging can have a positive contribution on the environment. (4 x 1 mark)
- B) Identify and describe FOUR ways in which plastic packaging can have a negative effect on the environment. (4 x 1 mark)
- C) Briefly describe THREE end-of-life options that are available to deal with empty corrugated boxes. (3 x 2 marks)
- D) Identify ONE way of evaluating the environmental impact of a packaging material. (1 mark)