



PIABC LEVEL 5 DIPLOMA IN PACKAGING TECHNOLOGY

(Qualification Number: 600/0017/X)

EXAMINATION PAPER

November 2020

A/502/5921 UNIT 01

Packaging in Today's World

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: 3 Hours

PIABC Level 5 Diploma in Packaging Technology
Unit 1 – Packaging in Today’s World
November 2020

INSTRUCTIONS TO CANDIDATES

You are required to answer ALL the questions on this paper

Learning Outcome 1
Understand the role of packaging in the modern society
(This question is worth 10% of the marks for this unit)

Question 1

- A) Using FOUR different examples; explain how packaging has developed in response to changes in society. (4 x 1 mark)
- B) Briefly describe how packaging policy can contribute towards a company’s corporate social responsibility. Illustrate your answer with THREE different examples. (3 x 2 marks)

Learning Outcome 2
Understand the structure and interactions of elements in the packaging supply chain
(This question is worth 20% of the marks for this unit)

Question 2

- A) Define the terms primary, secondary and tertiary packaging and give ONE example of each. (3 x 1 mark)
- B) For EACH of the following packaging components, briefly describe the stages in the supply chain from raw material to packaging components ready for despatch to the packer/filler. (3 x 2 marks)
 - 1. Paper label for wet glue application
 - 2. Steel can (unprinted)
 - 3. Stretch wrap film
- C) Twelve (12) 300ml glass bottles containing a carbonated liquid beverage with paper labels and a metal crown closure are collated (in a 3 x 4 matrix) within a corrugated board outer. The pack is mainly sold through retail outlets.

For the product described above; identify the THREE main mechanical hazards that would typically be experienced within the supply chain. Briefly outline the causes and effects and what can be done to mitigate them. (11 marks)

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Learning Outcome 3
Understand the functions of packaging
(This question is worth 30% of the marks for this unit)

Question 3

- A) Twelve eggs are packed in a labelled hinged pulped pack. Twenty-four of these packs are placed in a shelf ready corrugated case and the cases palletised.
- Discuss how this packaging format performs the functions of packaging and include the potential benefits of using shelf ready packaging for the retailer. (14 marks)
- B) Products can be preserved by the use of increasing the temperature or modifying the atmosphere; discuss the implications for the product and the packaging used in these processes. (2 x 5 marks)
- C) Describe the factors which contribute to the deterioration of metal packaging and how can they be prevented or reduced. (6 x 1 mark)

Learning Outcome 4
Know the principles of the key legislation, regulations and standards
relating to the packaging supply chain
(This question is worth 15% of the marks for this unit)

Question 4

- A) Identify and discuss the scope and implications to a company of a specific piece of legislation intended to reduce the impact of packaging on the environment. (6 marks)
- B) Identify and discuss the scope and implications to a company of a specific piece of legislation intended to ensure product safety. (6 marks)
- C) Identify SIX possible consequences of failing to comply with legislation. (6 x ½ mark)

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Learning Outcome 5
Understand the factors that affect the impact of packaging on the environment
(This question is worth 15% of the marks for this unit)

Question 5

- A) Briefly discuss environmentally sustainable development and its implications for packaging. (5 x 1 mark)
- B) Recovery of packaging waste can include:
- Recycling
 - Energy Recovery
 - Composting
- Discuss EACH of these from an environmental perspective including considerations about the choice of packaging materials. (3 x 3 marks)
- C) What is the difference between a biodegradable and a degradable material? (1 mark)

Learning Outcome 6
Understand the relationship between packaging and marketing
(This question is worth 10% of the marks for this unit)

Question 6

- A) i) Define marketing. (1 mark)
- ii) Identify and briefly describe FOUR key activities of marketing. (4 x 1½ marks)
- B) Consistency of communication is important for a product's brand image. Explain how this can be achieved using examples of packaging to illustrate your answer. (3 marks)

END OF EXAMINATION PAPER