



PIABC LEVEL 5 DIPLOMA IN PACKAGING TECHNOLOGY

(Qualification Number: 600/0017/X)

EXAMINATION PAPER

November 2021

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 2021

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) Identify FIVE current social or economic changes that are impacting the way in which brand owners are using packaging. (5 x ½ mark)
- B) Briefly discuss EACH factor explaining how the brand owner has responded. (5 x 1½ 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) Outline the steps in the supply chain from forest to packer filler for a corrugated board case. (5 marks)
- B) A flat screen television, sold via an online retailer, is individually packed in a plastic bag with moulded pulp end caps and placed in a corrugated board case.
- Describe the causes and effects of FIVE hazards which could be encountered from the product manufacturer to the consumer (5 x 2 marks) and how the packaging would mitigate the effects. (5 x 1 mark).

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

Question 3

- A) Describe three methods used to extend the shelf life of food products and discuss the implications for packaging for each. (3 x 4 marks)
- B) Using examples, explain how a product’s packaging components enables the product to be easily and safely handled:
- On the filling line (4 marks)
 - In storage and distribution (4 marks)
 - In use by the consumer (4 marks)
- C) Describe how changes in temperature and humidity could cause packaging to deteriorate. (6 marks)

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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) Discuss how the intellectual property created during the development of packaging can be protected by legislation. (5 marks)
- B) Discuss how changes in legislation, regulations and standards have influenced packaging practice. Use FOUR examples to illustrate your answer. (4 x 2 marks)
- C) Identify FOUR possible consequences of failing to comply with legislation. (4 x ½ marks)

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) An 'environmentally responsible' pack can be described as one which minimises the environmental impact of the pack and its contents throughout the supply chain.

Discuss the factors which need to be considered in the design, manufacture, distribution and use of such a pack. (7 marks)
- B) Discuss how life cycle analysis and life cycle assessment techniques can be used to measure the environmental impact of packaging throughout all stages of its life. (8 marks)

Learning Outcome 6
Understand the relationship between packaging and marketing

(This question is worth 10% of the marks for this unit)

Question 6

- A) From a marketing point of view, companies are said to be production led, sales led, or marketing led. Briefly discuss what each of these terms means and give an example of each type of company. (3 x 1 mark)
- Ba) What are the 4 'P's of marketing? (1 mark)
- b) Briefly discuss how each of these terms is relevant to fast moving consumer goods. (4 x 1½ marks)

END OF EXAMINATION PAPER