



PIABC LEVEL 5 DIPLOMA IN PACKAGING TECHNOLOGY

(Qualification Number: 600/0017/X)

EXAMINATION PAPER

June 2018

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
June 2018

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 **THREE** changes in society and discuss how packaging has evolved in response to these changes. (3 x 2 marks)
- B) Discuss **TWO** packaging related actions, which could contribute to a company's Corporate Social Responsibility policy. (2 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 garden nursery sells 10 plug plants (small seedlings no more than 2cm tall, 2cm diameter and 2cm deep) with growing instructions by mail order. The pack must fit through a letterbox.

- A) Considering the needs of such a product; propose a pack to ensure it arrives in good condition. (3 marks)
- B)
 - i) Briefly describe the stages of the journey (supply chain) from nursery to customer. (2 marks)
 - ii) Discuss **FOUR** major hazards the packed product may encounter, how they are caused (4 x 1 mark), their effects (4 x 1 mark) and how the packaging used could minimise the damage (4 x 1 mark).
- C) Briefly describe the types of transit trials and laboratory simulations which could be used to assess the pack's performance in the supply chain. (3 marks)

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

Question 3

- A) Using examples; describe **FIVE** methods by which the shelf life of food products can be extended and discuss the implications for packaging for each method. (5 x 4 marks)
- B) The way in which a pack is handled (and the product used) is determined by the design of the pack itself. Packaging designers have the opportunity to build in features to make handling easy, convenient and safe.

Using examples; explain how the convenience function enables a product to be easily and safely handled in the following situations:

- On the filling line (3 marks)
- In storage, distribution and retail (3 marks)
- In use by the consumer (4 marks)

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

For **EACH** of the areas listed below; identify and discuss the impact of a different piece of legislation or regulations in relation to milk packaged in a plastic bottle:

- A) Development (3 marks)
B) Filling (3 marks)
C) Selling (3 marks)
D) Use (3 marks)
E) Disposal (3 marks)

NOTE: Please use a different piece of legislation or regulation for each. When quoting legislation other than the EU or UK, please state the relevant country.

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) Discuss what you understand as an environmentally responsible pack. (5 x 1 mark)
- B) Minimising packaging waste by reducing the amount of packaging used is often proposed as an environmentally responsible design solution for packaging. Discuss the factors working for and against this possible solution. (10 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)
- B) i) What are the 4 'P's of marketing? (1 mark)
- ii) Briefly discuss how each of these terms is relevant to fast moving consumer goods. (4 x 1½ marks)