PIABC LEVEL 5 DIPLOMA IN PACKAGING TECHNOLOGY
(Qualification Number: 600/0017/X)

EXAMINATION PAPER

November 2023

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

Examination Time: 3 Hours

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
(10 marks)

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
(20 marks)

Question 2

A garden nursery sells 10 plug plants (a young plant ready to be grown on by the buyer no more than 5cm tall, 5cm diameter and 5cm 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)

Ba) Briefly describe the stages of the journey (supply chain) from nursery to customer. (2 marks)

b) 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)

Turn over for the next question

LEARNING OUTCOME 3
Understand the functions of packaging
(30 marks)

Question 3

A)   For both of the following, describe an appropriate primary pack and discuss how the primary packaging performs the functions of packaging:

- beer (8 marks)
- fresh beef steaks (8 marks)

B)   Describe an appropriate returnable secondary pack used to deliver fresh product into supermarkets and discuss how it performs the functions of packaging. (8 marks)

C)   Describe how changes in temperature and humidity could cause packaging deterioration. (6 marks)

LEARNING OUTCOME 4
Know the principles of the key legislation, regulations and standards
relating to the packaging supply chain
(15 marks)

Question 4

A)   Discuss how the intellectual property created during the development of packaging can be protected by legislation. (5 marks)

B)   Discuss how packaging practices has evolved over time in response to changes in legislation, regulations and standards. 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
(15 marks)

Question 5

A)   Explain what is meant by an environmentally responsible pack. (3 marks)

B)   Provide a definition for life cycle assessment. (2 marks)

C)   Identify FIVE methods of managing packaging waste and discuss their relative advantages and disadvantages. (5 x 2 marks)

Turn over for the next question

LEARNING OUTCOME 6
Understand the relationship between packaging and marketing
(10 marks)

Question 6

Aa)   Identify the 4P's of marketing. (4 x ½ mark)

  b)   Explain the relationship between packaging design and each of the 4P's. (4 x 1 mark)

B)   Using examples; identify the characteristics of a strong brand and discuss how this is supported by the packaging used. (4 x 1 mark)

END OF EXAMINATION PAPER