



SUMMER EXAMINATIONS 2023

EXAMINATION: UNIT 2 Packaging Materials and Containers I

COURSE: CPD Diploma in Packaging Technology

DATE: 11th May 2023
2pm to 4pm

EXAMINERS: David Little

TIME ALLOWED: 2 hours

INSTRUCTIONS: Please answer four questions. All questions carry equal marks

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The use of programmable or text storing calculators, smart phones etc are expressly forbidden. Please note that where a candidate answers more than the required number of questions, the examiner will mark all questions attempted and then select the highest scoring ones.

Question 1 (25 marks)

- a) Discuss how glass and its manufacture differ from most other forms of packaging. Refer to the various types of glass, its uses, run lengths and the potential production schedule issues in glass manufacture.

(17 marks)

- b) Discuss the various methods of decorating glass (give examples) and describe when this is done in the manufacturing process.

(8 marks)

Question 2 (25 marks)

With a goal of making your packaging more sustainable, use a product example and consider the impact of changing from plastic based packaging, to a more environmentally friendly paperboard / pulp based packaging for your chosen product.

(25 marks)

Question 3 (25 marks)

With the specification below, discuss the production steps in a carton company that are taken to bring a one-up keyline and approved sample carton, to a finished cartons that is boxed and palletised.

The specification is a skillet-end, straight-line glued, biscuit carton, printed CMYK plus white and UV lacquer, on metallised board, embossed image, with a window.

(25 marks)

Question 4 (25 marks)

Consider you are tasked with designing all levels of packaging for a heavy valve unit weighing 1kg each and size: 60mm x 60mm x 100mm, to be shipped on pallets to California from Ireland by sea and displayed on shelves in a hardware store. Make assumptions and select a suitable style and corrugated specification for each layer of packaging and give reasons for your choices.

(25 marks)

Question 5 (25 marks)

- a) Discuss the differences and benefits of 2-piece cans, compared to 3-piece cans and give examples to show where each could be used.

(15 marks)

- b) Discuss the types of corrosion and what causes it and how it could impact on your chosen products above, and the production steps that should be taken to avoid corrosion.

(10 marks)