



SUMMER EXAMINATIONS 2023

EXAMINATION: **UNIT 4 Package Printing and Decorating & Packaging Machinery**

COURSE: **CPD Diploma in Packaging Technology**

DATE: **May 12th 2023**
 2pm to 4pm

EXAMINERS: **Tony Duffy, 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 the importance of colour in brand development and give examples in FMCG use and the impact and importance for the brand.

(10 marks)

- (b) Pick three of the following and explain its importance and impact in colour management.

- Press Fingerprints
- Dot Gain
- Anilox
- Flexo plate technology
- Colour Bars or control strips

15 marks (5 marks each)

Question 2 (25 marks)

- (a) Describe the role of Digital Print in the Packaging Industry and discuss whether, you think this will grow or decline in the future. Back-up your hypothesis with examples.

(15 marks)

- (b) Discuss the breakeven point between Digital and Analogue print runs and explain which Printing process you would use to print a full colour B2 Poster. Would you use Litho or Digital for the following runs giving reasons to explain your choice:

- 2,000 run.
- 10,000 run.
- 10,000 run with 5 sorts.

(10 marks)

Question 3 (25 marks)

Choose two complimentary printing processes used for the production of FMCG packaging. Discuss the reasons for your choice, and explain the limitations and the benefits of each process.

(25 marks)

Question 4 (25 marks)

Create a Design Brief for a new Biscuit product to be sold in a Supermarket. You can decide on the product category / type / price, etc. Provide design instruction for the designer to come up with a suitable design for this new product. The brief should include all Front-of-Pack detail and considerations required for them to create the new Front-of-Pack design.

(25 marks)

Question 5 (25 marks)

- a) Describe the operation of a thermoformed filled seal packaging machine for packaging 500 g of steak.

(10 marks)

- b) Steak can be packed in pre-formed trays with a lidding film or in a vacuum packed tray. Compare and contrast these two methods for packing steak. You should also discuss how variable data is added to the two pack formats.

(15 marks)