



**UNIVERSITY OF GHANA**  
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**BSc. SECOND SEMESTER EXAMINATIONS: 2014/2015**

**FPEN 406: FOOD PACKAGING (2 Credits)**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS**

1. (a) Briefly explain why packaging has become important in modern food delivery systems. (10 marks)  
(b) Explain **three (3)** important functions of packaging (15 marks)
2. (a) Using named examples, briefly explain how **Colours, Fonts** and **Logos** used in packaging can be used as tools to brand a product of a company. (15 marks).  
(b) Discuss **four (4)** important properties of cushioning materials typically used for packaging (10 marks)
3. You have been asked to design a package for the food manufacturer  
(a) What are the **three (3) objectives** that you must consider? (9 marks)  
(b) What are the **four (4) basic elements of the design** that you must consider? (8 marks)  
(c) Discuss **four (4) other factors** you need to consider. (8 marks)
4. (a ) Distinguish between *cartons* and *corrugated fiberboards*. (6 marks)  
(b) Describe the **two (2)** main styles of cartons, illustrating your answers with examples. (6 marks)  
(c) (i) Describe the basic structure of corrugated boards. (7 marks)  
(ii) Describe *single-wall* and *double-wall* corrugated boards. (6 marks)
5. (a) Describe the key information you need to provide for the labelling of a food product package (6 marks)  
(b) Distinguish between the terms **Principal Display Panel, Alternate Display Panel** and **Information Panel** as related to labelling of food packages. (7 marks)

*Examiner: Prof. P-N.T Johnson*

(c) Give **four (4)** of potential benefits of using the Bar-coding system to each of the following: *Consumers, Retailers and Manufacturers.* **(12 marks)**

6. Write short notes on the following; illustrate your answers with examples:

- (a) *Active Packaging* **(8 marks)**
- (b) *Batch Numbers and Traceability* **(8 marks)**
- (c) *Pilfer-proof, Tamper-evident and Child-resistant closures* **(9 marks)**