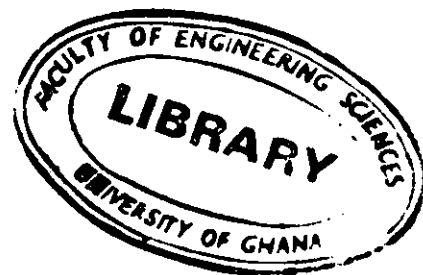




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**BSC ENGINEERING SECOND SEMESTER EXAMINATIONS: 2015/2016**

**SCHOOL OF ENGINEERING SCIENCES  
FPEN 406: FOOD PACKAGING (2 CREDITS)**

**INSTRUCTIONS:**  
**ANSWER FOUR (4) QUESTIONS**  
**TIME ALLOWED: 2 HOURS**

1. a. Discuss the main functions of packaging (16 marks)  
b. Explain why packaging has become important in modern day food distribution (9 marks)
2. a. Discuss how packaging can be used to brand a company's product. (9 marks)  
b. Discuss factors you need to consider in a packaging design process. (16 marks)
3. a. Discuss the **three (3)** environments that package food experiences (15 marks)  
b. Discuss **four (4)** important properties of cushioning materials typically used for packaging (10 marks)
4. Write short notes on the following packaging materials: illustrating with examples *Corrugated Board, Polyethylene, Metals, Glass and Cloth* (25 marks)
5. a. Describe the characteristics of closures used in packaging. (15 marks)  
b. Using named examples, write short notes on the following adhesives used in labelling of packages; *Aqueous, Emulsion, Pressure-sensitive and Heat-sensitive*. (10 marks)
6. a. For each of the following categories of persons, *Consumers, Retailers* and *Manufacturers*, describe potential benefits of using the Bar-coding system in food packaging (12 marks)  
b. Write short notes on the following; illustrate your answers with examples:
  - i. *Active Packaging* (7 marks)
  - ii. *Modified Atmosphere Packaging* (6 marks)