



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
14-16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS  
SCHOOL OF SCIENCE AND TECHNOLOGY  
JANUARY/FEBRUARY 2013 EXAMINATION**

**CPT 514 (Post Harvest Handling and Storage)**  
**INSTRUCTION: ANSWER ANY FOUR QUESTIONS IN TWO HOURS**  
**All Questions weighs 15 marks**  
**Total marks obtainable =60.**

**Question (1)**

**\* List and describe any five climatic elements that affect plant growth and development.**

**Question (2)**

- a) Define rainfall and list any other form of precipitation apart from rainfall.**
- b) List any 3 functions of water in plant.**
- c) List any 3 effect of excess of water in plants.**

**Question ( 3) .**

- a) Discuss post-harvest treatments to minimize loss and maximize quality of produce**
- b). Describe the treatments for decay control**
- c). Describe operations prior to packaging**

**Question (4)**

- a) i) Describe primary,(ii) secondary and (iii) tertiary processing of crop product**
- b) Explain traditional food fermentation in Nigeria**
- vi)List any3 challenges of food processing in Nigeria**

**Question (5)**

- a) Describe the process of respiration and its effect on produce quality**
- b) Explain the terms climacteric and non-climacteric fruits**
- c) Enumerate the factors that impact on rates of respiration**

**Question (6)**

- a ) Describe the problems encountered during storage of crop produce**
- b) Briefly explain how canning as a method of shelf life extension**
- c) Briefly explain how drying as a method of shelf-life extension**
- d) Briefly explain how as a method of shelf-life extension**
- e) Briefly explain how high pressure as a method of shelf-life extension**

