



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**FACULTY OF AGRICULTURAL SCIENCES**  
Km 4 Kaduna-Zaria Expressway Rigachikun, Kaduna  
**DEPARTMENT OF CROP AND SOIL SCIENCES**  
**2020\_2 EXAMINATION**

**COURSE CODE: CRP508**

**COURSE TITLE: POST HARVEST PHYSIOLOGY AND PRODUCE STORAGE (CRP508)**

**TOTAL CREDIT UNITS: 2CU**

**INSTRUCTIONS:** Answer four questions in all. Question one is compulsory (25 marks). The rest carry 15 marks each.

**TIME; 2.30 MINS**

**QUESTION**

1. a) Define briefly the following
  - I. Maturity,
  - II. Ripening and
  - III. Senescence of Farm Produce (12 marks)
- b) what are the environmental factors that hinders the maturity of farm produce (6marks)
- c) discuss the factors that affect ripening and senescence (7 marks)
2. a) In the tropical environment it is observed that, deterioration of farm produce is very fast. Give reasons (7 marks)
- b) Enumerate the steps of planning procedure for successful harvest (8 marks)
3. a) State the four physical indices of quality in fruits vegetables in market (6marks)
- b) Write short notes on the following quality in seeds (9marks)
  - i. High viability
  - ii. Good vigor
  - iii. Integrity of the seed
4. a) Differentiate between grains and seeds (6 marks)
- b) Describe the relationship of the effects of respiration and transpiration on fruits and vegetables after harvest (9 marks)
5. a) Discuss any six reasons for storage of harvested produce in agriculture. (9 marks)
- b) State four factors to be considered as pre-storage conditions for farm produce (6 marks)
6. a) Complete the table below by filling the relative humidity in percentage (8 marks)

Crop	Seed moisture content (%)	R/Humidity (%)
Bean	12	65
Carrot	10	-
Pea	14	-
Sweet Corn	12	-
Tomato	9	-

b) What is drying and what are the quality indices that affect drying. (7 marks)