



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

FIRST SEMESTER EXAMINATION SEPTEMBER 2020

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 Maturity, Ripening and Senescence of Farm Produce (9 marks)
 - b) List three environmental factors that affect the maturity of farm produce (7 marks)
 - c) Mention three factors that affect ripening and senescence (9 marks)
2.
 - a) Why is deterioration of farm produce very fast in the tropical environment (7 marks)
 - b) Enumerate the stages of planning procedure that lead to a successful harvest (8 marks)
3.
 - a) List five physical indices of quality in fruits vegetables and flowers that attracts a buyer in the market (5 marks)
 - b) Explain the following quality in seeds (10 marks)
 - i. High viability
 - ii. Good vigor
 - iii. Integrity of the seed
4.
 - a) What is the difference between grains and seeds (6 marks)
 - b) Briefly explain how respiration and transpiration affects fruits and vegetables after harvest (9 marks)
5.
 - a) Enumerate five reasons why harvested produce are stored (5 marks)
 - b) List four factors considered as pre-storage factors of farm produce (10 marks)
6.
 - a) The table below is recommended safe storage moisture for a period of one year. Complete the table by filling the relative humidity in percentage (10 marks)

Crop	Seed moisture content (%)	R/Humidity (%)
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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. (5 marks)