



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
FACULTY OF AGRICULTURAL SCIENCES  
DEPARTMENT OF CROP AND SOIL SCIENCE  
2024 I EXAMINATION-**

***COURSE TITLE: PERMANENT CROPS PRODUCTION (2CU)***

***COURSE CODE: CRP313***

***TOTAL SCORE: 70 MARKS***

***INSTRUCTION: Answer 3 questions in all***

***Question 1 is compulsory (30 marks) and any other TWO questions (20 marks each)***

***TIME ALLOWED: 1 ½ Hours***

1. a. State and explain three(3) technical factors that are needed for the proper establishment and production of a named tree crop.(13 marks)  
b. Define the following: i.climate. ii.weather.iii.edaphic factors.iv.weeds and their control in permanent crops plantations. (12 marks)  
c.State the benefits of intercropping(Agroforestry) in Rubber plantation management.(5 marks)
2. a.Explain the following as applicable to the seed of plant of your choice:i.seed extraction  
ii.seed storage iii. Seed viability.iv.seed drying (12 marks)  
b. State three (3) ways of performing seed germination test. (3 marks)  
c,Describe the process of integrated weed management in Rubber plantation.(5marks)
3. a. Explain three(3) non environmental factors that affect productivity of cacao  
(12 marks)  
b. Mention the Institution that has the mandate for cacao production in Nigeria and list their achievements on cacao disease control in the couple of years.(8 marks)
4. a.Discuss oil palm nursery pests and diseases and their control.(10 marks)  
b. Outline five(5) produce from oil palm fruit .(5 marks)  
c.Write on the benefits of mulching in Rubber plantation management.(5 marks)