

## NATIONAL OPEN UNIVERSITY OF NIGERIA FACULTY OF AGRICULTURAL SCIENCES DEPARTMENT OF CROP AND SOIL SCIENCE

EXAMINATION: 2021\_2 POP EXAMINATION 7835

COURSE TITLE: ANALYTICAL TECHNIQUES IN AGRICULTURE (3 CU)

COURSE CODE: AGR 503 TOTAL SCORE: 70 MARKS

INSTRUCTION: Answer 4 questions in all

Question 1 is compulsory (25 marks) and any other THREE questions (15 marks each)

TIME ALLOWED: 2 ½ Hours		
Q1	<ul><li>a. Explain Error in laboratory analysis?</li><li>b. Mention and briefly explain any four (4) sources of Error</li><li>c. Briefly explain Blanks and its importance in laboratory analysis</li></ul>	(7 marks) (8 marks) (10 marks)
Q2	<ul><li>a. Discuss what Soil Sampling means</li><li>b. Outline five (5) factors to be borne in mind while considering sampling</li></ul>	(10 marks) g methods (5 marks)
Q3	<ul><li>a. Discuss briefly five (5) Sampling Techniques you studied</li><li>b. Explain any two (2) methods of Sub-Sampling soils</li></ul>	(10 marks) (5 marks)
Q4	<ul><li>a. Briefly explain High Performance Liquid Chromatography (HPLC)</li><li>b. Outline eight (8) areas of application of HPLC</li></ul>	(7 marks) (8 marks)
Q5	<ul><li>a. What is Cryopreservation?</li><li>b. Mention ten (10) Areas in which Cryopreservation is possible</li></ul>	(5 marks) (10 marks)