

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI**  
**SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY**  
**DEPARTMENT OF CROP SCIENCE AND TECHNOLOGY**  
**2018/2019 Rain Semester Examination**

Course code: CST 204: Course Title: Field Crop Production

**Time allowed: 3 hrs.**

**Instructions: Answer 7 Questions.**

- 1 Discuss tobacco under the following headings: (i) Botanical name and three uses (ii) Planting time, planting materials and seed rate. (iii) seed rate and spacing in the field (iv) Two (2) diseases and pests each (v) four ways of curing.
2. In a tabular form (i) outline the English names of six types of yam known to you each with the scientific name well indentified and place of origin. (ii) State the three (3) benefits of staking in yam production (iii) state the set weight for planting yam, the planting material for yam production and seed rate per hectare of farmland including spacing in the field. (iv) outline the three most important storage methods of yam, three pests and two diseases and two uses of yam.
- 3(a) state the planting materials that can be used during the cultivation of *Colocasia* spp and *Xanthosoma* spp. (b) Briefly explain 2 methods which these planting materials can be multiplied. (c) Briefly explain how *Arachis hypogaea* can function as a green manure and a cover crop.
- 4(a). Why is cassava in Euphoraceae family. (b) State three (3) characteristics that distinguishes different cassava cultivars (c) Why is cassava tolerant to drought and low soil fertility. (d) State two (2) reasons why short stakes grown under low soil fertility produce weak plants.
- 5(a) State two reasons why winged bean is spaced at 1-1.5m x 1-1.5m . (b) How do you determine the maturity of rice grain. (c) As the grain is maturing, paddles are drained and the soil allowed to dry , why? (d) State at least three importance of parboiling rice before milling.
- 6 (a) Discuss on the three named pests and diseases of potato very common in the farmers field. (b) Describe the appropriate storage mechanism capable of increasing the shelf life of potato tubers in your locality.
- 7(a) Write the botanical names of the following maize classification : (i) Dent maize maize (ii) Flouy maize (iii) Flint maize (iv) Sweet maize (v) pop corn (b) What are the requirement for optimum production of maize with regard to : (i) pH range (ii) plant population (iii) Temperature (iv) rainfall (v) Time of harvest
- 8(a) "cowpea thrives well in relatively poor soils and a good intercrop with maize, millet, sorghum, sugarcane, and cotton". Justify this assertion in not more than two sentences.  
(b) Using flow chart only, describe the steps involved in the processing of sugarcane.