



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MAY/JUNE 2012 EXAMINATION

ACP303: PERMANENT CROP PRODUCTION
TIME ALLOWED: 2 Hours

INSTRUCTION(S): ANSWER ANY FOUR QUESTIONS IN TWO HOURS

- Q1. a. Identify any five permanent crops using their common names only
- b. List any five products that can be obtained from *Elaeisguinensis*
- c. *Briefly discuss the economic importance of permanent crops*
- Q2. Write a short note on each of the following cultural practices
(i) Felling (ii) weeding (iii) shading (iv) pruning (v) Mulching
- Q3. a. List any 3 types of fertilizers used in permanent crop production
- b. List any 3 methods of detecting nutrient deficiencies in permanent crops
- c. List any 3 methods of applying fertilizers to permanent crops.
- d. List any 3 nitrogen deficiency symptoms in *theobromacacao*
- e. *List any 3 qualities of a good soil on which plantation crop can be established*
- Q4. a. List any 3 organisms that can cause diseases in plantation crops
- b. List any 3 classes of pests of plantation crops
- c. List one fungal disease each of the following permanent crops.
(i) *Elaeisguinensis* (ii) *theobromacacao* (iii) *Cola nitida*
- d. *Name the specific class of pesticides/chemical used in the control of :*
(i) weeds (ii) insect (iii) Mollusc (iv) mites (v) bacteria (vi) virus

Q5. a) Describe the climatic elements that play significant roles in the choice of site to establish a plantation of permanent crops
b) list any 5 quality attributes of soil recommended for planting *Theobroma cacao*

Q6. a. (i) Name 2 tools that are good for harvesting *Theobroma cacao*

(ii) Give a reason why hand pulling to harvest the crop in AI is not recommended

b. List any 2 methods of depulping *Cola nitida*

(iii) List any 2 harvest indices of oil palm fruit.

c. What is the major difference between *Cola nitida* and *Cola acuminata*