



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 MAY

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 *Elaeis guinensis*
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 *Theobroma cacao*
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) *Elaeis guinensis* (ii) *Theobroma cacao* (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 (i) 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 acumunata*