LEAD CITY UNIVERSITY, IBADAN

Faculty of Sciences

Department of Microbiology/Biology

COURSE PARTICULARS

Course Title: PLANT REPRODUCTION
Course Code: BOT 413
Units: 2

Name : Adegbehingbe K.

Qualifications: Bsc. Biology , Msc. Zoology (Parasitology)

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Area of Specialization: Botanist and Zoologist.

Section A:

Introduction:

Seedless plants is a second year course and a pre-requisite to Introductory Botany (BOT 111). It is a compulsory course for students in the Education Biology department.

Objectives: To ensure students are able to describe the mechanism and process of reproduction in plants.

Course Description: BOT 413 entails the general biology of angiosperm, bryophytes and pteridophytes

Teaching Plan:

Weeks 1 & 2:	Introduction to plant reproduction
Week 3:	Types of reproduction
Week 4:	Sexual reproduction in Angiosperms: Ovule formation
Week 5:	Pollination and pollinators
Week 6:	Asexual reproduction
Week 7:	Significance of plant reproductive strategies
Week 8&9:	Fertilization
Week 10:	Double fertilization
Week 11:	The seed and fruits
Week 12:	Germplasm

Week 13: Germination
Week 14: Revision

Course Requirement/Assessment:

Continuous Assessment Test	30%
Terminal Examination	70%
Total	**100%**

Reading List:

Dutta T. C. (2010) Botany for Degree students 6th edition

Chittka, L., and J. D. Thomson, eds. *Cognitive Ecology of Pollination: Animal Behaviour and Floral Evolution.* New York: Cambridge University Press, 2001.

TUTORIAL QUESTIONS

1a. Define the term reproduction

b. Enumerate four forms asexual reproduction

2a. Outline four methods of artificial methods of propagation

b. Explain two of the above listed methods with examples.

3a. Define the term “Parthenogenesis”

b. Describe the process of binary fission.

4a. Define the term “Polyembryony”

b. Define the term Fertilization

5a. Describe the process of fertilization in plants

b. Outline five strategies which favours cross pollination

c. Outline five differences between cross and self pollination

6a. Define the term pollination.

b. State four pollinators and the various pollination strategies

7. Briefly explain reasons why pollinating agents exerted strong selection on all aspects of the flower, resulting in the evolution of tremendous floral diversity.

8a. State two advantages of outcrossers over selfers in their evolutionary potentials

b. Outline three significance strategies in plant reproduction.

9a. Discuss the process of double fertilization in angiosperms.

b. List two enzymes and two cell organelles which aid flexibility of pollen tube during sexual reproduction in angiosperms

10a. Describe the following terms:

i. Fruit

ii. Seed

iii.Testa

iv. Epicotyl

b. State three parts of an embryo.