EASTERN UNIVERSITY, SRI LANKA
THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE 2010/2011 (Dec 2012/Jan 2013)
AGB 3102 CROP BREEDING AND TECHNIQUE
(PRACTICAL EXAMINATION)

Answer All questions **Time: 02 hours**

Q1. a. Identify the vegetative reproduction parts displayed

b. Give the common and botanical names of the crop species to which these flowers belong.

c. Describe each of them with suitable diagrams. (15 marks)

Q2. a. Draw the given flowers and name the parts

b. Give the common and botanical names of the crop species to which these flowers belong.

c. Identify the kind of flowers based on flower biology

d. Make a table containing different flowers to clearly show the flower biology with your remarks. (15 marks)

Q3. Give the time of anthesis, stigma receptivity and isolation distance of
a. Chilli
b. Brinjal
c. Pumpkin
d. Snake gourd
e. Okra

(15 marks)

Q4. Give simple answers
a. What are monouecious plants and give 3 examples.
b. What are dioecious plants and give 3 examples
c. What is a staminate flower?
d. What is a cliastogamous flower?

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e. What is a cytoplasmic male sterility (CMS)?
f. What are the advantages of CMS plants?
g. How many stamens are found normally in chilli plant?
h. Give two flower types in brinjal based on the pistil type.
i. Name different pollinating agents
j. How do you protect plants from out crossing? (15 marks)

Q5. Identify the breeding tools displayed, draw them and give the uses (15 marks)

Q6. "Muduvil Muti" is a brinjal variety with round white fruit, comes into flowering in 30 days. "Tinnavely purple" is another brinjal variety with long purple fruits comes into flowering in 45 days. Note that purple fruit colour is dominate over white. You are expected to cross Muduvil Muti with Tinnavely purple using Muduvil Muti as the female parent . Describe in detail how your proceed to make this cross. (give each step clearly).
Give simple answers.

1. Why do you bag the flower after crossing?
2. What is the colour of fruit developed after crossing?
3. What is the colour of fruits developed on plants raised from crossed F_1 seeds?
4. What is the colour of fruits developed on plants in the next generation F_2 raised from self seeds?
5. Show how you make a label to denote the cross. (25 marks)

Bonus question

Give five observations you have made in your visit to Sarvidaya Farm (10 marks)