

# KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Ag. 2012 Admission

V<sup>th</sup> Semester Final Examination- January/February -2015

Cat. No: Pbg.3104

Title: Breeding of Crops (2+1)

Marks: 80

Time: 3 hours

I. Fill up the blanks /match the following /State True or false/ Define (10 x 1 = 10)

Fill up the blanks

1. The cultivated species under *Oryza* are \_\_\_\_\_ and \_\_\_\_\_
2. According to Vavilov Pearl millet originated in \_\_\_\_\_ centre of origin
3. *Triticum aestivum* consists of \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ genomes
4. Heterosis is the superiority of \_\_\_\_\_ over mid parental value
5. Central institute of cotton research is located at \_\_\_\_\_

Match the following

- |                        |                  |
|------------------------|------------------|
| 6. Cotton              | a. Pedaliaceae   |
| 7. Sesame              | b. Norin 10      |
| 8. <i>Piper nigrum</i> | c. Cacao         |
| 9. Wheat               | d. Western Ghats |
| 10. Criallo            | e. Doak's method |

II. Write short notes (ANY TEN ONLY)

(10 x 3 = 30)

1. Reasons for low yield of pulses
2. Classification at sub species level in *Arachis*
3. Three way cross
4. Micro propagation
5. Banana breeding
6. Local cultivars of coconut
7. Hardy Weinberg Law
8. Hand pollination in cashew
9. Define dominance and how to measure dominance
10. G x E interaction
11. Double cross hybrid in Maize
12. Importance of plant variety registrations

**III Write short essays on ANY SIX of the following**

**(6 x 5=30)**

1. Breeding strategies in coconut.
2. List out the breeding methods followed in vegetatively propagated crops.
3. Origin of wheat
4. Hybrid seed production in cotton.
5. Three line method of developing hybrids in rice
6. NBPGR and its activities.
7. Explain the different types of storage of seeds used for conservation.
8. Write a note on DNA based molecular markers in genetic conservation.

**IV Write essay on ANY ONE**

**(1 x10=10)**

1. Define IPR, write down its applications in agriculture.
2. Define resistance; what are the different breeding methods utilized for resistance breeding? Explain back cross breeding with examples.