KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Agriculture 2014 Admissions
Vth Semester Final Examination-January-2017

Cat. No: Pbgn.3104 **Marks: 50.00**
Title: Breeding of crops (2+1) **Time: 2 hours**

I Fill up the blanks **(10x1=10)**

1. Expansion of IPR is .....
2. Name a dwarfing gene in wheat .....
3. Progenitor of maize is .....
4. *Theobroma cacao* is now reclassified under the family.....
5. Species of *Pennisetum*, in which apomitic gene is reported .....
6. Progenitor of Red gram is .....
7. ..... is a white seeded sesamum released from Kerala Agricultural University
8. Head quarters of Asian Vegetable Research and Development Centre (AVRDC) is located at .....
9. First coconut hybrid was produced by ..... in 1934
10. Breeding method adopted for release of KAU cashew variety 'Sulabha' is .....

II Write short notes on any FIVE of the following **(5x2=10)**

1. What is patent and its requirements. What are all not patentable in India?
2. List different species of maize with its ploidy level and chromosome number
3. What are all the morphological features preferred for "Super rice".
4. Red Data Book
5. List five sub species of *Vigna unguiculata*
6. Explain seedling selection criteria for coconut
7. List the major breeding objectives set for cashew improvement

III Write short notes on any FIVE **(5x4=20)**

1. Explain modified ear to row selection in maize
2. Define " Biological Diversity" and explain importance of conservation of biodiversity
3. Give floral biology of ground nut with suitable diagram and its mode of pollination
4. Name four important national centers dealing with mango breeding. Explain the 'cage method' used in hybridization programme of mango.
5. Explain 'Test tapping' in rubber.
6. Comment on parentage, breeding procedure and critical features of KAU released Chilli varieties – Jwalamukhi, Jwalasakhi, Ujwala, Anugraha and Manjeri.
7. Explain India's legal case with Basmati patent and how Indian Government protested against this.

IV Write Essay on any ONE **(1x10=10)**

1. What are the different breeding methods to develop hybrid rice? Explain three line breeding system in rice.
2. Explain in detail TBGRI (Tropical Botanical Garden and Research Institute) model of Benefit sharing.

****