

KERALA AGRICULTURAL UNIVERSITY

B.Sc Hons (Ag) 2010 Admission

Vth Semester Final Examination- January /February -2013

Cat. No: Pbn.3104

Title: Breeding of Crops (2+1)

Marks: 80

Time: 3 hours

I Fill up the blanks /State True or False

(10 x 1=10)

1. Wheat variety Sharbathi Sonora is a mutant variety of _____
2. Pollinating agent of cocoa is _____ midges.
3. Centre of origin of Bajara is _____
4. Cow pea variety kanakamony (PTB1) is a selection from _____
5. World's first pigeon pea hybrid is _____
6. _____ and _____ varieties are exempted from DUS testing for registration.
7. _____ is the parentage of sesamum variety "Thilothama" released from KAU.
8. KAU released F1 hybrid of Brinjal is _____
9. World's first organised coconut research was started during 1916 at _____
10. _____ is the first cashew variety released in India through the breeding method 'selection'.

II Write Short notes on ANY TEN

(10 x 3=30)

1. Explain national gene fund? How it is constituted and utilized.
2. Difference between hard wheat and soft wheat.
3. Why staggered sowing is recommended in hybrid seed production of rice.
4. Explain the concept of intellectual property and list different forms of intellectual property rights.
5. Explain different stages of hybrid bajara breeding in India.
6. Explain sub species of *Arachis hypogaea*
7. Explain the concept of pre potent palm in coconut as given by Harland(1957)
8. Explain hybridization technique in cashew .List five cashew hybrids released from KAU with their parentage.
9. Differentiate between Ceara rubber and Para Rubber.
10. What is Alein gene transfer, how it is exploited in wheat, explain with examples.
11. Define geographical Indication .Name five products that received GI in India.
12. Explain the situation in which mass selection is adopted in self pollinated crops.

III Write short essays on ANY SIX of the following

(6 x 5 =30)

1. Explain India's legal case with turmeric patency and what are the steps taken to revoke it and on which background the patent was revoked.
2. Describe desirable traits of CMS lines and R lines of Hybrid rice.
3. Explain vertical Resistance and Horizontal resistance.
4. What are all the edible *mangifera* species reported in India? What is the advantage and disadvantage of poly embryonic varieties in mango breeding?
5. List different species under *Hevea* and explain the floral biology of *H.braziliensis*.
6. Give the parentage of bitter gourd varieties-Priya, Preethi and Priyanka released from KAU. Give critical description about the above said varieties.
7. Give different classification of cotton. Give three important varieties of cotton with its parentage.
8. Explain PVPFR Act and what are the reasons for introducing the Act by Govt. of India.

IV Write essay on ANY ONE

(1 x 10=10)

1. Explain two line system of heterosis breeding in rice.
2. Explain functions and powers of National Biodiversity Authority (NBA), State Biodiversity Board (SBB) and Biodiversity Management Committees (BMCs).
