

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Forestry. 2014 Admission

... IInd Semester Final Examination- August-2015

Cat. No: Tpbr.1205

Marks: 50

Title: Principles of cytology and Genetics (2+1)

Time: 2 hours

I State whether the following statements are True /False

(10 x 1=10)

1. A lethal allele is expressed only in recessive condition
2. Sex linked genes are located on the autosomes
3. Acquired traits are inherited to next generation
4. Mutations are not inheritable
5. A reciprocal translocation involves non homologous chromosomes
6. Translocation heterozygotes could produce semi-sterility
7. F1 being intermediate to both the parents indicate presence of codominant alleles
8. Pectinase enzyme is required for DNA replication
9. Back cross and test cross products are same
10. Epistasis is inter allelic interaction

II Write short notes on any FIVE

(5 x 2=10)

1. Epigenesis
2. Linkage maps
3. Lethal alleles
4. Polygenic inheritance
5. Central dogma
6. Ideogram
7. Quantitative trait loci

III Write short notes on any FIVE

(5 x 4=20)

1. Multiple alleles (ABO Blood groups)
2. Genetic code and its characteristics
3. Translation
4. Cell reproduction
5. Cytoplasmic inheritance
6. Law of Independent Assortment
7. Physical structure of DNA

IV Write essay on ANY ONE

(1 x 10=10)

1. Structural aberrations in chromosomes
2. Induced Mutations