

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Forestry Degree Programme 2015 Admission

IInd Semester Final Examination-August-2016

Cat. No: Tpbr 1205

Marks: 50.00

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

Time: 2 hours

I Fill up the blanks

(10 x 1 =10)

1. Chromosome theory of Inheritance is proposed by _____.
2. _____ demonstrated existence of multiple factors:
3. Synapsis occurs during _____ phase.
4. Number of mitotic divisions involved in Microgametogenesis is _____
5. Some solutes enter the cytoplasm through the process _____
6. If sex index ((SI) value of an individual is 0.75, then sex expression would be _____.
7. 20 unit of map distance is equivalent to _____ % of crossing over.
8. Down syndrome is caused by _____ condition.
9. Lagging strand replication generating small polynucleotide fragments _____
10. A nucleosome core has _____ bp long DNA molecule.

II Write short notes on ANY FIVE

(5 x 2 =10)

1. Euploidy
2. Physical mutagens
3. CMS in plants
4. Incomplete dominance
5. Karyotype
6. Criss-cross inheritance
7. Epistasis

III. Explain ANY FIVE of the following

(5 x 4 =20)

1. Linkage
2. Sporogenesis
3. Transcription
4. Classifications of Mutations
5. Stages of prophase-I
6. Characteristics of Genetic Code
7. Maternal Inheritance

IV. Write essay on ANY ONE

(1 x 10=10)

1. Structural Chromosomal aberrations
2. DNA replication
