Molecular Genetics Super Workshop Quiz 1.3.2010

1. Inbred corn lines that differ by a single trait may have been developed by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ method.

Wide cross Backcross Crossover Polyclonal

1. A specific gene within the genome can be Homozygous, Heterozygous or Hemizygous. Place each term in front of the proper definition.

\_\_\_\_\_ the alleles for a specific gene are different.

\_\_\_\_\_ the alleles for a specific gene are the same.

\_\_\_\_\_ there is no corresponding allele for the gene.

1. Chromosome number is constant from cell to cell within an organism due to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cell division.

Mitotic (Mitosis) Meiotic (Meiosis) Metacentric Monocistronic

1. To avoid doubling the chromosome number in the resulting zygote.Chromosome number is constant from generation to generation through \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cell division

Mitotic (Mitosis) Meiotic (Meiosis) Metacentric Monocistronic

1. \_\_\_\_\_\_\_\_\_\_\_ chromosomes have the same genes in the same locations but may have different versions of those genes.

Homeologous Homologous Haploid Hemizygous

1. Sister chromatids are exact duplicates of a chromosome joined by a common \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Centromere Telomere Centimorgans Cistron

1. In the somatic cell of a corn plant there are 20 chromosomes or \_\_\_\_ homologous chromosomes.

5 10 40 20

1. Genetic marker can be base substitutions, insertion, deletions and translocations in the DNA. They are referred to as genetic polymorphisms.

Polymerizations Polyadenylations Polymorphisms Polypeptides

1. RFLP stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Restriction Fragment Length Polymorphism

Restriction Fragment Length Polypeptide

Random Fragment Length Polymorphism

Reverse Facilitated Lateral Poluadenylation

1. If you are using AFLPs or RAPDs you are \_\_\_\_\_\_\_\_\_\_\_\_\_ DNA to develop markers.

Arranging Altering Amplifying Anchoring

1. SSRs or Simple Sequence Repeats are also known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Microsatellites Minicircles Micromeres Macrorestriction Maps

1. \_\_\_\_\_\_\_\_ are single nucleotide differences in DNA sequences.

PNSs SKIPs SNPs SLIPs

1. Multiplexing utilizes multiple \_\_\_\_\_\_\_\_\_\_\_ to detect a specific DNA sequence.

Dihaploids Primers Dimers Dyads

1. A domain is a classification above Kingdom. Any cell or organism that possesses a clearly defined nucleus is part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ domain.

Bacteria Archeaea Eukaryota Prokaryota

1. The bases are of four types A, C, G and T. Pairing always occurs between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A + T, G + C A + G, T + C A + C, G + T A + T, G + T

1. Single stranded DNA can function as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Tempest Template Enzyme

1. The Central Dogma involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Replication, Transcription and Translation

Retaliation, transformation and Procrastination

Replication, Translation and Mutation

1. A non-coding region is called an intron. T F
2. T-RNA transfers a specific active amino acid to a growing polypeptide chain
   1. The “t” stands for: Transfer Translational Tandem Taqman
   2. The growing polypeptide chain will from a: protein nucleotide

1. In DNA and polypeptide chains activity is in the following direction.

3’ to 5’ 5’ to 2’ 5’ to 3’ 2’ to 5’