**Final-Term Assignment (Summer-2020) (BS-MLT)**

**Course Title: Human Genetics Instructor: Mr. Fazli Zahir Mian**

**Time: 4 Hours**

**Q1: Fill in the Blanks.**

1. One PCR cycle comprises of 3 steps (a)\_\_\_\_\_\_\_\_\_\_\_\_ (b)\_\_\_\_\_\_\_\_\_\_\_ (c)\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is often called the “resting” phase but cell is not at rest.
3. The unwound form of the chromosome is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. According to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ law of Medal, during the formation of gametes, the paired alleles separate randomly so that each gamete receives one allele or the other.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the differential survival and reproduction of individuals due to differences in phenotype.

**Q2: Briefly explain the following**

1. Interphase
2. Check Points in Cell Division
3. DNA Synthesis Phase
4. G1, G2 and G0 Phases

**Q3: Write a detail note on mutation and types of mutation.**

**Q4: What is Medal Genetic? Discus Medal law of segregation and medal law of independent assortment.**

**Q5: Discus in derail the process of mitosis with diagrams.**

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Good luck.