

## Biology - 10th Class Biology English Medium Chapter 15 Preparation

Q1. What is homologous pair or chromosomes?

**Ans 1:** Two chromosomes, which are similar in their shape, size and position of centromere, make one homologous pair.

Q2. Define crossing over?

**Ans 1:** An exchange of segments between non-sister chromatids of homologous chromosomes occurs at the chiasmata. This process is called crossing over.

Q3. State the law of Segregation?

**Ans 1:** The two coexisting alleles of an individual for each trait segregate during gamete formation so that each gamete gets only one of the two alleles. This is called Mendel's law of segregation.

Q4. What is multiple alleles?

**Ans 1:** More than two alternative form of a gene are called multiple alleles.

Q5. What is the function of DNA polymerase enzyme ?

**Ans 1:** DNA polymerase enzyme helps in binding the fresh nucleotides to the template strand

Q6. What is karyotype?

**Ans 1:** the entire chromosomes complement of an individual or cell is called karyotype.

Q7. Where are synthesized the restriction enzymes ? What is their use ?

**Ans 1:** Bacteria make restriction enzymes for their own defense . These enzymes cut unwanted DNA into pieces

Q8. In which condition RBCs are decreased in numbers?

**Ans 1:** Anemia or anemic condition.

Q9. What is punnett square ?

**Ans 1:** It is a simple method for tracking the kinds of gametes and their all possible combinations at fertilization . Each block of square represents a possible combination of alleles . It was proposed by a British mathematician named punnett

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Q10. Who presented the model of structure of DNA and what is its structure of DNA ?

**Ans 1:** James Watsons and Franc's of DNA in the model for structure of DNA in 1953 . They gave the double helix structure DNA

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