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Class 12th

Sub. Biology

Date:- 27.06.2020

Law of Segregation and Co-dominance Co-dominance

- In co-dominance, the F₁ progeny resembles both the parents.
- Example: ABO blood groups in human beings
- ABO blood groups are controlled by gene *I*. Gene *I* has three alleles, *I^A*, *I^B* and *i*. A person possesses any two of the three alleles.
- *I^A* and *I^B* dominate over *i*. But with each other, *I^A* and *I^B* are co-dominant.
- *I^A* and *I^B* contain A and B types of sugar, while *i* does not contain any sugar.

Allele from Parent 1	Allele from Parent 2	Genotype of offspring	Blood type of offspring
<i>I^A</i>	<i>I^A</i>	<i>I^A I^A</i>	A
<i>I^A</i>	<i>I^B</i>	<i>I^A I^B</i>	AB
<i>I^A</i>	<i>i</i>	<i>I^A i</i>	A
<i>I^B</i>	<i>I^A</i>	<i>I^A I^B</i>	AB
<i>I^B</i>	<i>I^B</i>	<i>I^B I^B</i>	B
<i>I^B</i>	<i>i</i>	<i>I^B i</i>	B

<i>I_o</i>	<i>I_o</i>	<i>I_o I_o</i>	<i>O</i>
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- Multiple alleles: When more than two alleles control a character, as in human blood groups
 - Multiple alleles are used in population studies.