

Name: _____						
Subject: Biology		Class: 12 <sup>th</sup>	Time: 80 minutes	Total Marks:	40	
Chapter No.		MJDexpert.com			Obtained marks	

**Note:** Please attempt any 10 short questions from Question 2. Also, attempt both parts of Question 3. Cutting and removal of any content is strictly prohibited.

**Q#1 Encircle the Correct Option (10 x 1 = 10)**

1. A man with blood group AB cannot be the father of a child with which blood group?

- A) O    B) AB    C) B    D) A

2. Which blood group is known as the universal donor?

- A) A    B) B    C) AB    D) O

3. Incomplete dominance was first observed by:

- A) De Vries    B) Johansen    C) Carl Correns    D) Tschermak

4. The most well-known example of multiple alleles inheritance is:

- A) MN blood group    B) B blood group    C) RH blood type    D) ABO blood group

5. What is it called when both alleles of a gene pair independently express themselves in a heterozygote?

- A) Dominance    B) Incomplete dominance    C) Overdominance    D) Codominance

6. How many gene pairs are involved in determining the color of wheat grains?

- A) One    B) Two    C) Three    D) Four

7. Which type of trait is inherited directly from an affected father to only his sons?

- A) Autosomal    B) X-linked    C) Y-linked    D) None

8. Which plant did Mendel use for his genetic experiments?

- A) Pea    B) Peanut    C) Pear    D) Peach

9. The term locus refers to the position of a gene on:

- A) DNA    B) Alleles    C) Chromosomes    D) None

10. Incomplete dominance is also known as:

- A) Partial dominance    B) Codominance    C) Dominance    D) None of these

**Q #2 Short Questions (2 x 10 = 20)**

1. Differentiate between genes and alleles.

2. What is the meaning of locus in genetics?

3. Define the term "gene pool."

4. State Mendel's Law of Segregation.

5. How does incomplete dominance differ from codominance?

6. Can a child's IQ be higher than that of their parents? Explain.

7. What are multiple alleles?

8. Define "antiserum."

9. What are sex-influenced traits?

10. Define "erythroblastosis fetalis."

**Q #3 Long Questions (2 x 5 = 10)**

1. What are X-linked traits? Explain the genetics of color blindness.

2. What is the RH factor? Describe the genetic basis of the RH blood group system in humans.