**The Origins Of Genetics** (p. 162 – 169)

**I. Mendel’s Studies Of Characters**

 **1. Define the term heredity.**

 Heredity –

 **2. Who was Gregor Mendel?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 **3. What type of plant did he extensively study?** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **4. Define the term genetics.**

 Genetics –

 **5. List three reasons why pea plants were useful for Mendel to study.**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**II. Traits Expressed As Simple Ratios**

 **1. Define the term monohybrid cross.**

 Monohybrid Cross –

 **2. Describe each step of Mendel’s monohybrid crosses.**

 P Generation : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 F1 Generation : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 F2 Generation : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3. What was the significance of Mendel’s observations?**

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**III. A Theory Of Heredity**

 **1. Offspring are the result of traits blending.**

 Circle One : True False

 **2. Describe Mendel’s four hypotheses of heredity.**

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 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3. Match the genetics terms with the correct definitions.**

 1. \_\_\_\_\_\_\_\_ Alleles A. Non-expressed form of a character

 2. \_\_\_\_\_\_\_\_ Dominant B. Alleles of gene that are different (Ff)

 3. \_\_\_\_\_\_\_\_ Recessive C. Different forms of a gene

 4. \_\_\_\_\_\_\_\_ Homozygous D. Physical appearance of a character

 5. \_\_\_\_\_\_\_\_ Heterozygous E. Set of alleles that an individual has for a character

 6. \_\_\_\_\_\_\_\_ Genotype F. Expressed form of a character

 7. \_\_\_\_\_\_\_\_ Phenotype G. Two alleles of a gene that are similar (FF or ff)

 **4. An organism with a recessive allele for a trait will always exhibit that form.**

 Circle One : True False

**IV. The Laws Of Heredity**

 **1. State the Law Of Segregation.**

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 **2. State the Law Of Independent Assortment.**

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 **3. Define the term Punnett square.** (p. 170)

 Punnett Square -