

**CLASS - X Science**  
**(Heredity and Evolution)**

1. The concept of origin of species by natural selection was given by. (1)  
(A) lamarck (B) weismann  
(C) Darwin (D) Linnaeus
2. It a round green seeded pea plant (RRYY) is grossed with wrinkled yellow seeded pea plant (rr yy) the seeds to be produced in fl generation will be. (1)  
(A) Wrinkled and yellow (B) round and green  
(C) wrinkled and green (D) round and yellow.
3. The genetic constitution of an organism is called. (1)  
(A) Genotype (B) phenotype  
(C) variation (D) gene.
4. Write the scientific name of the plant on which Mendel carried out his experiments. (1)
5. How many auto some are present in human sperm? (1)
6. What is emasculation? Why is it done? (2)
7. What is gene? Where are genes located? (2)
8. How many contrasting characins did Mendel see in garden pea? Give any two of them. (2)
9. What is phenotypic ratio obtained by Mendel by monohybrid clots? Answer with the help of diagram. (2)
10. Give difference between homologous and analogous organs. (3)
11. State three laws of Mendel. (3)
12. Describe how the sex of the offspring is determined is the zygote is human beings? (3)
13. Give a suitable explanation for "geographical isolation of individual of a species lead to formation of a new species? (3)
14. (i) Who provided the evidence of DNA as genetic material? (5)  
(ii) Why DNA is called polynucleotide.  
(iii) List three important features of double helical model of DNA.