

**Que 1. What is a sex chromosome?**

**Que 2. What is meant by analogous organs? Taking a suitable example, explain how they support the theory of Organic Evolution.**

**Que 3. What is a gene?**

**Que 4. "The sex of the children is determined by what they inherit from their father and not their mother." Justify.**

**Que 5. Distinguish between acquired and inherited traits by giving one example of each. Why are traits acquired during the lifetime of an individual not inherited?**

**Que 6. Give one example each of characters that are inherited and the ones that are acquired in humans. Mention the difference between the inherited and the acquired characters.**

**Que 7. With the help of a flow chart explain in brief how the sex of a newborn is genetically determined in human beings. Which of the two parents, the mother or the father, is responsible for determination of sex of a child?**

**Que 8. How is the equal genetic contribution of male and female parents ensured in the progeny?**

**Que 9. A cross was made between pure breeding pea plants, one with round and green seeds and the other with wrinkled and yellow seeds.**

**(a) Write the phenotype of F1 progeny. Give reason for your answer.**

**(b) Write the different types of F2 progeny obtained along with their ratio when F1 progeny was selfed.**

**Que 10. State the meaning of inherited traits and acquired traits. Which of the two is not passed on to the next generation? Explain with the help of an example.**

**Que 11. "An individual cannot pass on to its progeny the experiences of its lifetime." Justify the statement with the help of an example and also give reason for the same.**

**Que 12. Explain Mendel's law of independent inheritance. Give one example.**

**Que 13. Why are males called heterogametic?**

**Que 14. What is the phenotypic ratio obtained by Mendel by monohybrid cross? Answer with the help of a diagram.**

**Que 15. Write the difference between Autosomes and Allosomes.**