



## Heredity Theory Test

1. Which of the two exhibit greater variation-asexual and sexual reproduction? 2
2. Why all variants don't have equal chances of survival? 2
3. What is heredity? 1
4. What is the scientific name of the plant Mendel studied? Write down characteristics. 1+2
5. Define gene.1
6. Which of the two is shorter in length? X and Y? 2
7. Determine the sex of progeny inheriting X chromosome from its father. 2
8. Define chromosome. 1
9. Describe how the number of chromosomes is conserved in progenies? 2
10. A trait might be inherited but not expressed. Elaborate with an example. 3
11. Explain dihybrid cross with example till F2 with phenotypic ratio. 4
12. State law of dominance. 2
13. Show sex determination of human beings. 3
14. One tall plant (TT) and axial (aa) flower is crossed with dwarf (tt) and terminal flower (AA). Find the phenotypic ratio of F2 progeny. 3
15. Can you identify (TT) and (Tt) from the external appearance? What is TT and Tt called? 2
16. Define factor and alleles. 2
17. Who was the father of genetics? Name the laws proposed by him. 1+3=4
18. The ratio of purple and white flower of pea in F2 is.....1
19. Why recessive character is expressive in pure state? 2
20. Is Mendel law applicable for animals too? 1

21. Pooja has green eyes while her parents and brother has black eyes. Pooja's husband Ravi has black eyes while his mother has green eyes and her father has black eyes. 3

- a) On the basis of the above given information is the green eye colour a dominant or recessive trait? Justify your answer.
- b) What is the possible genetic makeup of pooja's brother's eye colour?
- c) What is the probability that the offspring of pooja and Ravi will have green eyes?

