



# ST. LAWRENCE HIGH SCHOOL



## A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Life Science

Class: X

Date: 16.11.2020

CHAPTER: HEREDITY & COMMON GENETIC DISORDERS

TOPIC: HEREDITY

### WORKSHEET 45

**Choose the correct option:**

**(1X15=15)**

- A cross between a tall plant (TT) and short plant (tt) resulted in progeny that were all tall plants as:
  - Tallness is the dominant trait
  - Shortness is the dominant trait
  - Tallness is the recessive trait
  - None of these
- If a pure tall pea plant is crossed with a pure short plant. The ratio of pure tall plants to pure short plants in F<sub>2</sub> generation will be:
  - 1: 3
  - 3: 1
  - 1: 1
  - 2: 1
- Which of the following indicates a trait?
  - Height
  - Free ear lobe
  - eye colour
  - None of these
- Who rediscovered Mendel's work?
  - Correns
  - Hugo DeVries
  - Both a&b
  - None of these
- The ultimate source of all genetic variation is
  - Mutation
  - Heredity
  - Variation
  - None of these
- Mutation can affect
  - Single base pair
  - Segment of chromosome
  - Both a&b
  - None of these
- The locus of red & white eye colour in *Drosophila* is present on
  - Y chromosome
  - X chromosome
  - Z chromosome
  - Both 1&2
- Which of the following gives information for protein?
  - Gene
  - Nucleus
  - Locus
  - Character
- Which of the following is the most important work of Mendel?
  - Origin of Species
  - Linkage theory
  - Laws of Inheritance
  - Cell theory
- The hereditary information is present in the \_\_\_\_\_ of parents.
  - Sex cells
  - Gametes
  - Both a&b
  - None of these
- The rule of \_\_\_\_\_ determines the process by which traits and characteristics are reliably inherited.
  - Heredity
  - Reproduction
  - Generation
  - None of these
- Which of the following is not possible according to Mendel's experiment?
  - 3 tall 1 short
  - 24 tall 8 short
  - 8 tall 0 short
  - 4 tall & 1 medium height
- An organism with RRYy genotype will produce \_\_\_\_\_ type of gametes.
  - 2
  - 1
  - 3
  - 8
- The locus of which of the following is same?
  - T
  - t
  - R
  - Both 1&2
- The genotype of a yellow round seed containing pea plant is
  - RRYY
  - RrYy
  - RrYY
  - All of these

-Debjani Chakraborty