

BOARD QUESTION PAPER

| Subjec Class | t: Biology : XII | Ch.:3. Inheritance and Variation | Total Marks : 25 Time : 1 Hr. | |
|--|---|---|----------------------------------|--|
| | | Section A | | |
| Q.1. : Select & write the most appropriate answer from the given alterna | | | | |
| | each sub-ques | 4 | | |
| i | Mendel performed experiments on | | | |
| | a) Cow pea | b) Chick pea c) Garden pea d) Pigeo | on pea | |
| ii | i) Sex determina | tion in man is | | |
| | a)XY-XX type | b)XY-X0 type c)X0-XX type d) XY-X | Y type | |
| iii |) The genotypic | ratio of monohybrid cross will be | | |
| | a) 1:2 | b) 3:2 c) 2:1 d) 1:2:1 | | |
| iv) | called | | | |
| | a) Metacentric | b) Acrocentric c) Sub-Metacentric d) | Telocentric | |
| Q. 2. : | Write the ans | wer in ONE sentence: | 2 | |
| i) | What is Phenotype? | | | |
| ii) | Define: Linkag | je. | | |
| | | Section B | | |
| : | Attempt any Tl | IREE. | 6 | |
| Q. 3. : | Give graphic representation of monohybrid cross. | | | |
| Q. 4. : | Give graphic representation of Dihybrid cross | | | |
| Q. 5.: | Why law of seg | Why law of segregation is also called the law of purity of gametes? | | |
| Q. 6.: | What is linkage? How many linkage groups do occur in human being and maize? | | | |
| | | Section C | | |
| Ċ | Attempt any Tl | IREE | 9 | |
| Q. 7.: | Write a note on l | | , | |
| ···· | | r | | |

- **Q. 8.:** Write a note on pleiotropy.
- **Q.9.:** Give graphic representation of colour blindness $X^{C}Y \times X^{C}X^{C}$.
- **Q.10.:** Explain the chromosomal theory of inheritance.

Section D

4

A AN A A A

- : Answer the following : (ANY 1)
- **Q.11.:** State and explain Mendel's 3rd law of inheritance.
- **Q.12.:** Explain sex determination in humans and honey bees.

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