

4. Jumping Gene was discovered by :
- (a) T. H. Morgan (b) H. J. Muller
(c) C. B. Bridges (d) ~~Barbara McClintock~~
5. Functional unit of mutation is :
- (a) Gene (b) Muton
(c) Recon (d) ~~Cistron~~
6. Mendel found certain traits *not* to assort independently. It is due to :
- (a) Dominance (b) ~~Linkage~~
(c) Crossing Over (d) Amitosis
7. A child of blood group O cannot have parents of blood groups :
- (a) AB and AB (b) ~~A and B~~
(c) B and B (d) O and O
8. Term crossing over coined by :
- (a) De Vries (b) ~~Morgan~~
(c) Corren (d) Mendel
9. The term cistron, recon and Muton were coined by :
- (a) Ingram (b) Leaderberg
(c) ~~Benzer~~ (d) Bateson
10. Which of the following viruses will be useful for transduction ?
- (a) T₂ phase (b) T₄ phase
(c) T₇ phase (d) ~~Lamda phase~~

SECTION - B

[Marks : 5 × 7 = 35

Write short notes on any seven :

1. Incomplete linkage.
2. Lethal genes.
3. Cytoplasmic Inheritance.
4. Hardy Weinburg Law.
5. Mapping of genes.
6. Physical Mutagens.
7. Complementary genes.
8. Genomic frequency.
9. Test cross.
10. Turner's syndrome.

SECTION - C

[Marks : 10 × 3 = 30

1. What is mutation ? Explain the mechanism of induced and spontaneous mutation.
2. What is crossing over ? Describe Mechanism and importance of crossing over.
3. Write an essay on microbial genetics. Explain conjugation transformation and transduction.

4. Write an essay on structural aberrations in chromosomes.

5. Write short notes on :

(a) Multiple alleles

(b) Cistron

(c) Muton

(d) Recon

