

*The Submission of the assignment has to be completed by all the student on or before 7<sup>th</sup> August, 2020 on the site [www.sbdeorahonline.in](http://www.sbdeorahonline.in) in PDF format only.*

**T.D.C. IVth Semester**

**Paper Code:-M 402 (Honors)**

**Paper name:- Genetics**

**Total Marks:- 50**

**1. Answer the following questions:-. 1×5=5**

- i. What is test cross?
- ii. What do you mean by linked genes?
- iii. What is synaptonamal complex?
- iv. What do you mean by triplet codons?
- v. What is the significance of test cross?

**2. Answer the following:-. 2×5=10**

- i. Write about the degenerate coding system of triplet codons with appropriate examples.
- ii. Give brief account on the mode of inheritance of mitochondrial DNA.
- iii. What is the role of synaptonemal complex in the process of crossing over?
- iv. Differentiate between the back cross and test cross.
- v. Differentiate between B- DNA and Z-DNA.

**3. Answer the following questions:-. 5×3=15**

- i. Write a short note on multiple alleles and gene interaction with example.
- ii. Describe the structure of t-RNA.
- iii. Describe the Waston and Crick model of DNA.

**4. What are the major events in protein synthesis? Explain briefly with suitable example. 10**

**5. Describe various autosomal and sex chromomal growth disorders in human. 10**

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