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**SVIS 311 A -16**  
**B.Sc. VIth Semester Degree Examination**  
**BOTANY**  
**(Cytology Genetics Plant Breeding, Biostatistics)**  
**Paper - 6.1**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates:**

- 1) Answer **All** the Questions.
- 2) Draw diagram wherever necessary.

**Section -A**

**I. Answer the following questions in one word or One sentence each (1×15=15)**

1. Who discovered Nucleic acids?
2. What are Racker's particles
3. Where do you find poly. A. Tail
4. Define Euploidy
5. What is deletion?
6. What are cristae
7. What is inbreeding?
8. Mention the Ratio of dihybrid test-cross
9. What is an allele?
10. Define regression.

11. What is Emasculation?
12. What is Heterosis?
13. What is Adenosine?
14. What is Criss-Cross inheritance?
15. What are Autosomes?

**Section -B**

**II. Answer any Five of the following.**

**(5×5=25)**

16. What is complementary gene interaction? Explain with a suitable example.
17. With a labelled diagram explain the ultra structure of chloroplast.
18. What is linkage? Explain linkage in Maize
19. Describe transfer RNA.
20. What are aneuploids? Explain monosomy and Nullisomy.
21. Describe salivary gland chromosome.
22. What is Hybridization? Mention the steps involved in it.

**Section -C**

**Answer any Four of the following**

**(4×10=40)**

23. What is replication? Explain the semiconservative type of DNA replication.
24. What is protein synthesis? Explain translation in protein synthesis.
25. With the suitable example, explain Mendel's law of independent assortment.
26. What is Multiple Allelism? Explain with reference to coat colour in Rabbit
27. What are chromosomal aberrations? Explain Inversion.

28. In poultry the white plumage of white leghorn "IICC" is dominant over white plymouth Rock "iicc" what will be the results of following crosses.

1  $IiCc \times iicC$

2  $IICc \times iiCc$