



# ADITYA DEGREE COLLEGES

\* ANDHRA PRADESH \*

PRE FINAL - EXAMINATIONS

III B.Sc VI SEMESTER

GENETICS AND ECOLOGY

Max. Marks : 75 M

Time: 3 Hours

Date: 26.03.2020

## SECTION-A

I. Answer any FIVE of the following questions: 5 x 5 = 25 M

1. In complete and co dominance
2. Back cross
3. Gene structure
4. Sex determination
5. SOS repair
6. Missense and nonsense mutations
7. Down's syndrome
8. Food chain and food web

## SECTION-B

II. Answer the following questions: 5 x 10 = 50 M

9. a) Write about Recessive and dominant gene interactions.

(Or)

- b) Explain Mendal laws of inheritance with suitable examples.

10. a) Gene transfer in bacteria - Explain

(Or)

- b) Discuss Gene and environment

11. a) Write about physical and chemical mutations.

(Or)

- b) Explain DNA repair mechanisms

12. a) Write about the symptoms of Haemophilia and Sickle cell anaemia

(Or)

- b) Explain Klinefelter's syndrome and Turner's syndrome

13. a) Explain the structure and functions of Ecosystem

(Or)

- b) Explain how Biodiversity is conserved.