

FACULTY OF SCIENCE

B.Sc(III) Year Examination

BOTANY

Paper –III

(Cell Biology, Genetics, Ecology and Bio-Diversity)

Time: 3hrs

Max Marks:100

SECTION – A (Marks 8x2=16)

Answer all of the following questions

1. Heterochromatin
2. Karyotype
3. Transposons
4. Translations
5. Pyramid
6. Ecotype
7. UNEP
8. Red Data book

SECTION –B (4X6=24)

Answer any FOUR of the following questions

9. Cell cycle
10. Types and functions of RNA
11. Chromosomal Mutations
12. Mitochondrial Genome
13. Phosphorous cycle
14. Food chain
15. Principles of conservation
16. Role of WWF and NBPGR

SECTION – C (4X15=60)

Answer all of the following questions

17. a) Structure and Replication of DNA
(or)
b) Special types of chromosomes
18. a) Define mutations and describe gene mutations
(or)
b) Write an essay on genetic interactions
19. a) Define Bio geo Chemical cycle and explain nitrogen cycle
(or)
b) Write the process of succession and describe hydrosere.
20. a) Discuss the principles of Bio-Diversity.
(or)
b) Explain the major threats to Bio-Diversity.

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22/1/16
Controller of Examination
SATAVAHANA UNIVERSITY
KARIMNAGAR.

M. J. D. P.
Chairman BOS in
Botany

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B.Sc(III) Year Examination

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Paper –IV

(Physiology, Tissue culture, Biotechnology, Seed technology and Horticulture)

Time: 3hrs

Max Marks:100

SECTION – A (Marks 8x2=16)

Answer all of the following questions

1. Imbibition
2. Co-enzyme
3. Guttation
4. Macronutrients
5. Indicator plants
6. Seed bank
7. Callus
8. Layering

SECTION –B (4X6=24)

Answer any FOUR of the following questions

9. Lock and key model
10. Plasmolysis
11. Transcription
12. C₄ Cycle
13. Gibberellins
14. Sterilization in tissue culture
15. Seed testing
16. Bud grafting

SECTION – C (4X15=60)

Answer all of the following questions

17. a) Explain stomatal mechanism
(or)
b) Explain the Ascent of Sap in plants
18. a) Describe Calvin cycle
(or)
b) Explain Kreb's cycle
19. a) Significance of tissue culture
(or)
b) Describe r-DNA technology
20. a) Write an essay on Shade net and Green house
(or)
b) Write an essay on Bonsai plants

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