

SUBJECT CODE: BOT-1A

CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU

I B.Sc. – I SEMESTER END EXAMINATION - OCTOBER 2017

BOTANY PAPER I

MICROBIAL DIVERSITY, ALGAE AND FUNGI

Time: 3 hrs.

Max.Marks: 50

SECTION - A

Answer any THREE in four pages.

3x8=24M

1. Briefly state the major theories of Origin of life.
2. Describe the process of reproduction in Bacteria.
3. Explain the process of replication in Bacteriophage.
4. What is meant by Tsomorphic alternation of generations. Explain it with the help of Ectocarpus life history.
5. Describe the structure and Reproduction in Lichens.

SECTION – B

Answer any FOUR of the following:

4x4=16M

6. Write the classification of R.H. Whittaker.
7. Briefly write the general characters of Bacteria.
8. Write short notes on the structure of TMV.
9. Write the name of causative organism, symptoms and control measures of Leaf curl of Papaya disease.
10. Write the structure of Oedogonium cell.
11. Write the symptoms of white rust.
12. Write the Economic Importance of Penicillium.
13. Differentiate between the Aeria and Spermata.

SECTION – C

Answer ALL the following:

10x1=10M

14. What is Biogenesis?
15. Expand PPLO.
16. Who introduced the term Plasmid?
17. What is Bacteriology?
18. Who introduced the term Virus?
19. Define Lipovirus.
20. Define Nannandrium.

21. What is clump formation?
22. Define Soredium.
23. What is Peridium?

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PAPER CODE: BOT-2A  
CH.S.D.ST.THERESA'S AUTONOMOUS COLLEGE FOR WOMEN:ELURU  
II B.Sc. – III SEMESTER END EXAMINATION – OCTOBER 2016  
BOTANY PAPER III  
TAXONOMY AND EMBRYOLOGY OF ANGIOSPERMS

Time: 3 hrs.

Max.Marks:50

Note: Draw neat labeled diagrams wherever necessary.

SECTION - A

Answer any THREE of the following:

3x8=24M

1. What is "Natural" system of classification?  
Give an account of Natural system of classification.
2. What is a "Herbarium"? Explain the different steps involved in Herbarium preparation and storage.
3. Describe the salient features of the family "Asclepiadaceae" and Mention its economic importance.
4. Describe the development of various types of Embryosacs.
5. Describe the development of Endosperm in Angiosperms. Add a note on its significance.

SECTION – B

Answer any FOUR of the following.

4x4=16M

6. Systematics
7. Botanical gardens
8. Essential organs of Annonaceae.
9. Lever mechanism.
10. Cyathium inflorescence in Euphorbiaceae.
11. Types of ovules-Describe.
12. Double fertilization and Triple fusion.
13. Cleavage Polyembryony.

SECTION – C

Answer ALL the questions in one or two sentences in one place.

10x1=10M

14. Who proposed the phylogenetic system of classification?
15. What is Tautonym? Give one example.
16. Obdiplostemonous – Define.
17. "Cremocarp" is present in which family?
18. What is compound head? Give one example.
19. Mention the Botanical name of Mangrove palm.
20. What is "Endothecium"?

21. Cleistogamy – Define. Give one example.
22. What is “Embryogeny”?
23. Who proposed the “Necrohormone” theory?

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CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU

II B.Sc. – III SEMESTER END EXAMINATION – OCTOBER 2017

BOTANY PAPER III

TAXONOMY AND EMBRYOLOGY

Time: 3 hrs.

Max.Marks: 50

SECTION - A

Answer any THREE of the following Essays:

3x8=24M

1. Explain Bentham and hooker's system of classification. Why it is considered as natural system of classification?
2. Discuss the floral characters of family Cucurbitaceae.
3. Enumerate the vegetative and floral characters of Poaceae.
4. Discuss various types of Embryo sacs.
5. Describe the development of embryo which is having two cotyledons.

SECTION – B

Answer any FOUR of the following

4x4=16M

6. State difference between artificial, natural and phylogenetic classification.
7. Comment on Botanical gardens.
8. List out the economically important plants in Asteraceae.
9. List out the economically important plants in Asclepiadaceae.
10. Comment on structure of ovule
11. State the process of fertilization.
12. State any four functions of endosperm.
13. State the developmental stages of Najas Embryo.

SECTION – C

Answer ALL the following:

10x1=10M

14. Expand ICBN
15. What are Tautonyms?
16. Name the botanical name and family of Rama phalam.
17. Synandrous stamens are seen in which plant.
18. What is gynostegium?
19. What is scutellum? Name the family it is present.
20. Who was known as father of embryology?

21. Define Microsporogenesis.
22. What is coconut meat?
23. What is the function of haustoria?

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PAPER CODE: BOT-2B

CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU.

II B.Sc. – IV SEMESTER END EXAMINATION – APRIL 2016

BOTANY PAPER II

ANATOMY AND MEDICINAL BOTANY

Time: 3 hrs.

Max.Marks: 50

NOTE: Draw the diagrams wherever necessary.

SECTION - A

Answer any THREE of the following questions:

3x8=24

1. Describe various theories regarding the organization of Shoot apex.
2. Describe the internal structure of Monocot Stem. Write the differences between Dicot and Moncot Stems.
3. Explain the process of Anomolous secondary growth in Boerhaavia.
4. Write about the Basic concepts, Diagnosis and Treatment of disease in Homeopathy.
5. Write the Botanical name, Family, active principles and medicinal uses of Tippa teega and Aswagandha.

SECTION – B

Answer any FOUR of the following:

4x4=16

6. Write an account on different types of Meristems.
7. Describe the structure and functions of Phloem.
8. Describe the internal structure of Monocot leaf.
9. Write the Botanical name, Family and Economic importance of Teak wood.
10. What is the role of CIMAP and CDRI in Indian systems of Medicine?
11. Write about the concepts of Health and disease in Naturopathy.
12. Write about Adulteration of crude drugs.
13. How important are Kalabanda and Turmeric in Primary health care?

SECTION – C

Answer ALL the questions in One or Two sentences in one place. 10x1=10

14. Quiscent centre
15. What are Sclereids? Mention the types.
16. What is Periderm?
17. What are Annual rings?
18. Write the botanical name and family of Red Sanders wood.
19. What is Phloem wedge?
20. What are Tridoshas?

21. What is Ethnomedicine.
22. What are the important phytochemicals in Sarpagandha and their uses?
23. What is  $R_f$  value?

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SUBJECT CODE: BOT-3A

CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU

III B.Sc. – V SEMESTER END EXAMINATION - OCTOBER 2017

BOTANY PAPER V

CELL BIOLOGY AND GENETICS

Time: 3 hrs.

Max.Marks: 50

SECTION – A

Answer any THREE of the following:

3x8=24M

1. Describe in detail the ultrastructure of cell wall.
2. Describe the process of Meiosis. How is meiosis is necessary for sexual reproduction.
3. Explain the structure of DNA proposed by Watson and crick.
4. Define Linkage? Explain different types of linkages with examples.
5. What do you understand by crossing over? Discuss the various views available to explain the mechanism of crossing over.

SECTION – B

Answer any FOUR of the following:

4x4=16M

6. Who discovered the Endoplasmic reticulum? Write a short note on Endoplasmic Reticulum.
7. What are 'the Power houses' of the cell and write about its structure.
8. Write the classification of chromatin.
9. State the Types and Functions of RNA.
10. Distinguish between Back cross and Test cross.
11. Write a short note on chromosomal theory of Inheritance.
12. Define mutagens? Write about the Physical mutagens.
13. How many types of mutations are occur on the basis of their effect on organism.

SECTION – C

Answer ALL the following:

10x1=10M

14. Who is the father of cell biology?
15. Which cell organelle is the suicide bag.
16. What is nuclear sap?
17. What is Nucleotide?
18. Define genome.
19. What is Termination?
20. What do the letters P, F<sub>1</sub> & F<sub>2</sub> represents in heredity?

21. Why did Mendel use the Pea plants as his experimental material?
22. Who proposed the copy-choice Hypothesis?
23. Give any two examples for Physical mutagens.

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SUBJECT CODE: BOT-4A

CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU

III B.Sc. – V SEMESTER END EXAMINATION - OCTOBER 2017

BOTANY PAPER VI

MEDICINAL BOTANY AND ECOLOGY

Time: 3 hrs.

Max.Marks: 50

SECTION - A

I Answer any THREE of the following: 3x8=24M

1. Explain various aspects of Indian medical system developed by Susruta and Charaka?
2. Enumerate the chemical constituents and medicinal importance of Kalabanda and Amla.
3. Write an essay on Gums.
4. Enunciate abiotic and biotic components of ecosystem.
5. Explain the role of nitrogen cycle in plant growth.

SECTION - B

II Answer any FOUR of the following: 4x4=16M

6. State the historical account of Homeopathy.
7. State the active principle and medicinal uses of Guntagalagara.
8. Write the botanical name, family, active principle and medicinal use of Podapatri.
9. Comment on Alkaloids.
10. Comment on latex.
11. Comment on food chains.
12. Differentiate between natality and mortality.
13. Write about Soil profile.

SECTION – C

III Answer ALL the following: 10x1=10M

14. Name tridoshas.
15. Name Trigunas.
16. Why Rouwolfia was named as sarpagandha.
17. Give the botanical name, family of Anti-Diabetic plant.
18. Name the alkaloid that cures Malaria.
19. Define Lysigenous cavity.
20. Define ecads.

21. Define Xerosere.
22. Define symbiosis.
23. What is litter?

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PAPER CODE: BOT-3A

CH.S.D.ST.THERESA'S AUTONOMOUS COLLEGE FOR WOMEN:ELURU

III B.Sc. – V SEMESTER END EXAMINATION – OCTOBER 2016

BOTANY PAPER III  
CELL BIOLOGY & ECOLOGY

Time: 3 hrs.

Max.Marks:50

NOTE: Draw labeled diagrams wherever necessary.

SECTION - A

Answer any THREE of the following:

3x8=24M

1. Describe the structure, chemical composition, development and functions of Cell Wall.
2. Explain the semi conservative method of DNA Replication.
3. Give an account on various stages of Mitosis. Add a note on its significance.
4. Write about the morphological and anatomical adaptations of Hydrophytes.
5. Write an essay on various concepts of productivity of an ecosystem.

SECTION – B

Answer any FOUR of the following:

4x4=16

6. Fluid mosaic model of plasma membrane.
7. Structure of Nucleus.
8. Structure and types of chromosomes.
9. Ultrastructure of Prokaryotic cell.
10. t-RNA – Structure and functions.
11. Energy flow in Ecosystem.
12. Growth curves
13. Xerosere

SECTION- C

Answer ALL the questions in one or two sentences in a sequential order. 10x1=10

14. What are dictyosomes?
15. What are the structural components of Plasma membrane?
16. Distinguish between Nucleoside and Nucleotide.
17. What are Nucleosomes?
18. What is Synapsis?
19. What is Heterochromatin?
20. Define Bio-geo-chemical cycle? Give an example.

21. What is Weathering?
22. What is Biological Spectrum?
23. What are Phytoplank tons?

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PAPER CODE: BOT-4A

CH.S.D.ST.THERESA'S AUTONOMOUS COLLEGE FOR WOMEN:ELURU

III B.Sc. – V SEMESTER END EXAMINATION – OCTOBER 2016

BOTANY PAPER IV

PLANT PHYSIOLOGY, BIOTECHNOLOGY AND TISSUE CULTURE

Time: 3 hrs.

Max.Marks:50

NOTE: Draw labeled diagrams wherever necessary.

SECTION - A

Answer any THREE of the following:

3x8=24M

1. Explain the theories of Ascent of Sap.
2. Write an essay on enzyme action and Enzyme Kinetics.
3. Explain the C<sub>3</sub> cycle in Plants.
4. Write an essay on Callus Culture.
5. Write an essay on r-DNA Technology

SECTION – B

Answer any FOUR of the following:

4x4 = 16M

6. Osmotic potential
7. Importance of water.
8. Lock and Key theory.
9. Photorespiration
10. CMA pathway.
11. M.S. Medium
12. Micro Propagation.
13. Cybrids.

SECTION – C

Answer ALL the questions in ONE or TWO sentences in one place 10x1=10M

14. Diffusion.
15. Apoplast
16. co-enzyme
17. Active absorption
18. Hill reaction
19. ATP asc
20. Vaccines

21. Bio technology
22. Explant
23. Embryoculture.

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PAPER CODE: BOT-4B

CH.S.D.ST. THERESA'S AUTONOMOUS COLLEGE FOR WOMEN: ELURU.

III B.Sc. – VI SEMESTER END EXAMINATION – MARCH 2016

BOTANY PAPER IV

PLANT PHYSIOLOGY PART-B HORTICULTURE AND SEED  
TECHNOLOGY

Time: 3 hrs.

Max.Marks: 50

SECTION - A

Answer any THREE of the following:

3x8=24

1. Write an essay on Glycolysis.
2. Write an essay on Protein Synthesis.
3. Write an essay on Auxines.
4. What is Seed Dormancy? Mention the causes for dormancy and give various methods to break the Seed dormancy.
5. What is horticulture, give a general account of the horticulture and its techniques.

SECTION – B

Answer any FOUR of the following:

4x4=16

6. Types of Respiration.
7. Nitrogen Cycle.
8. Photoperiodism
9. Vernalization
10. Seed structure and its types.
11. Seed banks
12. Land Scaping
13. Floriculture

SECTION – C

Answer ALL the questions in one or two sentences in one place. 10x1=10

14. Fermentation
15. Mitochondria
16. Ammonification
17. Denitrification
18. Abscission
19. Stress hormone
20. Dormancy

21. Seed storage
22. Horticulture
23. Chip budding

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