



## ST. ANN'S COLLEGE FOR WOMEN

(Affiliated to Acharya Nagarjuna University,  
Recognized Under Section 2(f) of UGC Act 1956-New Delhi)

**Amaravathi Road, Gorantla, Guntur – 522034 (A.P)**

Email: [st\\_anns\\_coll@yahoo.co.in](mailto:st_anns_coll@yahoo.co.in) Website: [www.stannscollegeforwomen.org](http://www.stannscollegeforwomen.org)

**Criterion: II**

**Metric – 2.5.1**



**2.5.1**

**INTERNAL EXAMINATION QUESTION PAPERS**

## ST. ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR -35.

MID TERM EXAMINATIONS- DECEMBER-2023

PAPER-VI – FOOD, AGRICULTURE & ENVIRONMENTAL MICROBIOLOGY

**MICROBIOLOGY- SEMESTER- V**

TIME :: 1Hr

Date: 19-12-2023

MAX MARKS :15

Answer any THREE of the following : (3x5=15M)

1. Give an account on Plant Microbe interactions?
2. Write about the Biogas production?
3. Write about the Methods of Solid waste Disposal?
4. Write about the Liquid waste Management of Primary, Secondary, Tertiary treatment?
5. Write the steps of Nitrogen cycle?



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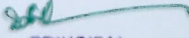
**ST. ANN'S COLLEGE FOR WOMEN**  
GORANTLA, GUNTUR -35.  
II-MID TERM EXAMINATIONS- DECEMBER-2023  
PAPER-VII –MUSHROOM CULTIVATION  
**BOTANY - SEMESTER- V**

TIME : : 1Hr  
Date: 18-12-2023

MAX MARKS :15M

Answer any THREE of the following : (3x5=15M)

1. Give a brief account on pasteurisation?
2. Give an account of isolation techniques for getting pure culture and their maintenance?
3. What is casing? Why is casing necessary?
4. Write note on post harvest handling of fresh paddy straw mushroom?
5. What are the major diseases of mushrooms?

  
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**ST. ANN'S COLLEGE FOR WOMEN**  
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II-MID TERM EXAMINATIONS- DECEMBER-2023  
PAPER-VII –MUSHROOM CULTIVATION  
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**ST.ANN'S COLLEGE FOR WOMEN**  
Gorantla, Guntur  
**DEPARTMENT OF BOTANY**  
Pre final examinations 2022  
**Cell biology, genetics and plant breeding**

Time : 2 Hrs.

Max. Marks : 50

**Section \_A** (5x2=10M)

Answer any **FIVE** of the following :

1. What is karyotype, idiogram
2. What is euchromatin and heterochromatin
3. Mutations
4. Backcross, testcross
5. Complementary genes

**Section\_B** (2X5=10M)

Answer any **FIVE** of the following :

6. Linkage
7. Crossing over
8. Transcription

**Section-C** (3 X 10 = 30)

Answer any **FIVE** of the following :

9. Explain how variations are brought in the structure of the chromosome
10. Give an account on genetic code
11. Give an account on gene interaction
12. Explain the role of somaclonal variations in crop improvement
13. Give an account and regulation of gene expression

*D. S. Fatima Hans P*  
PRINCIPAL  
St. Ann's College for Women  
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**MID TERM EXAMINATIONS- MARCH-2022**

**PAPER-III –Medical Microbiology & Immunology**

MICROBIOLOGY- SEMESTER- III

TIME : : 3 Hrs

MAX MARKS ::75

**SECTION – A**

Answer any **FIVE** of the following:

(5x5=25M)

1. Invasion
2. yeast
3. Filaria
4. Antibacterial Drug
5. Spleen
6. B-Lymphocytes
- 7.Haptens
- 8.Type-I Hypersensitivity

**SECTION – B**

(5x 10=50M)

Answer the following :

9. a) Explain the Normal Flora of Human Body?  
(or)  
b) Write an account on the general methods of Laboratory Diagnosis?
10. a) Describe the bacterial diseases for example Tuberculosis?  
(or)  
b) Write an account on Viral diseases such as Hepatitis A & C?
11. a) Explain the Nomenclature, types & classification of Interferons?  
(or)  
b) Write an account on passive & Acquired Immunity?.
12. a) Describe the Structure, Types & properties of Immunoglobulins?  
(or)  
b) Describe the Cells of Immune system?
13. a) Write About Nosocomial infection?  
(or)  
b) Write an account on Polyclonal & monoclonal antibodies ?

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SECTION – A

Answer ALL the questions

(3X10=30M)

1(a).Describe an experimental arrangement for calculating wavelength of light using Lloyds Single Mirror?

(OR)

(b).Describe Newton rings experiment and Explain how to measure wavelength of Light?

2(a).Describe the construction and working of Nicola prism. Explain how Nicola prism used as polarizer and analyzer?

(OR)

(b).Describe the construction and working of Laurent's half-shade polar meter. Explain how you would use it to determine the specific rotation of sugar solution?

3(a).What is meant by spherical aberration? Explain how we minimize the spherical aberration?

(OR)

(b).What is Chromatic aberration? Give the expression for how we minimize the chromatic aberration using combination of two lenses?

SECTION - B

Answer any FOUR of the following

(4x5=20M)

4.Describe Interference by a film with two Non reflecting Wedge Shaped Film?

5.What are the Conditions for interference of Light and Explain Colours of Thin films?

5.Explain how Astigmatism and COMA Formed?

6.Derive Brewster's law and Mauls law?

7.Give a brief note on Half Wave Plate and Quarter Wave Plate?

8.Explain Double refraction with necessary theory?

*Dr. Felicitas*  
 PRINCIPAL  
 St. Ann's College for Women  
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## ST. ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR -35.

I - MID TERM EXAMINATIONS MARCH-2021

MB-I – INTRODUCTORY MICROBIOLOGY

MICRIBIOLOGY - SEMESTER- I,

TIME :: 2 Hrs

MAX MARKS :: 50 M

SECTION – A(4x5=20M)

Answer any **FOUR** of the following :

1. Contributions of Louis pasteur
2. Morphology of Bacteria
3. Whittaker's 5 kingdom concept
4. Contributions of Antony von Leuwenhoek
5. HIV
6. General charecteristics of Archeobacteria

SECTION – B(3x10=30M)

Answer any **THREE** of the following :

7. Write an important & applications of Microbiology?
8. Describr the characteristics of Archeobacteria?
9. Describe the Ultrastructure of Prokaryotic cell ?
10. Explain the General charecteristics of viruses?
11. Explain the structure & replication of TMV ?

*Dr. S. Fatima*  
18/3/21  
PRINCIPAL  
St. Ann's College for Women,  
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## ST. ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR -35.

I - MID TERM EXAMINATIONS DEC-2020  
BOT-III CELL BIOLOGY, GENETICS & PLANT BREEDING

**BOTANY** -SEMESTER- V, Paper -V

TIME :: 2 Hrs

MAX MARKS :: 50 M

SECTION – A(4x5=20M)


Answer any **FOUR** of the following :

1. Cell Theory
2. Nucleosome model
3. Objectives of plant breeding
4. Hybrid vigour
5. Griffiths and Avery's transformation experiment
6. Euchromatin, heterochromatin

SECTION – B(3x10=30M)

Answer any **THREE** of the following :

7. (a) Give an account of Eukaryotic cell and its components ?  
(Or)  
(b) Describe the structure and function of cell membrane?
8. (a) Give an account of the replication of DNA ?  
(Or)  
(b) Give an account of the structure of DNA?
9. (a) What is plant introduction? Give an account of it?  
(Or)  
(b) What is selection? Describe different methods of selection in crop improvement?

  
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TIME :: 2 Hrs

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I - MID TERM EXAMINATIONS DEC-2020

BT-III – MOLECULAR BIOLOGY

BIOTECHNOLOGY SEMESTER- V, Paper -V

TIME :: 2 Hrs

MAX MARKS :: 50 M

SECTION – A(4x5=20M)

Answer any **FOUR** of the following :

1. Gene
2. Chromosome
3. Harshey-chase-Experiment
4. Meselson and stahl's Experiment
5. DNA Polymerase
6. Rolling- Circle replication of DNA

SECTION – B(3x10=30M)

Answer any **THREE** of the following :

7. Explain the Watson and crick model of DNA?
8. Give an account on Genome organization in Prokaryotes ?
9. Explain different methods proved as DNA as Genetic material ?
10. Describe the mechanism of DNA Replication ?
11. Explain the Different types of enzyme used in DNA Replication?

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TIME :: 2 Hrs

MAX MARKS :: 50

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PRE – FINAL EXAMINATIONS – Feb -2019

BOT – PHARMACOGNOSY AND PHYTOCHEMISTRY

BOTANY - III SEMESTER- VI PAPER-CLUSTER III

TIME : : 3 Hrs

MAX MARKS :: 75 M

SECTION – A Answer any FIVE of the following : (5x5=25M)

1. Chemical evolution of crude drugs.
2. Importance of pharmacognosy.
3. Microscopic study of ALSTONIA scholaris
4. Chemical constituents of ginger.
5. Steroids
6. Phenols
7. Bio synthesis of Alkaloids.
8. glycosides

SECTION – B Answer ALL questions: (5X10=50M)

9. Define pharmacognosy? write an essay on chemical and pharmacological classification of crude drugs?  
(or)  
b) Write an essay on analytical evolution of crude drugs?
10. a) give an account of organoleptic and microscopic studies, active principle, and common adulterants of *Adhatoda vasica*?  
(or)  
b) explain about common adulterants of medicinal plant parts like bark, leaf, seed, stem, root and other parts
11. a) what are terpenoids? explain various types of terpenoids?  
(or)  
b) Write an essay on shikimate path way?
12. a) what is aromatherapy? what are the different oils used in Aromatherapy, and their mode of action?  
(or)  
b) what are different types of phenols? Describe their bio synthesis?
13. a) Write are vitamins? Classify them with their physiological role?  
(or)  
b) what are anti- oxidants? Classify them with few examples?

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## ST. ANN'S COLLEGE FOR WOMEN.

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II - MID TERM EXAMINATIONS – Sep -2019

MB – MICROBIAL GENETICS & MOLECULAR BIOLOGY

MICROBIOLOGY - II SEMESTER- III

TIME :: 3 Hrs

MAX MARKS :: 75 M

SECTION – A Answer any FIVE of the following : (5x5=25M)

1. Enzymes involved in DNA replication
2. RNA as genetic material
3. Pyrimidine dimer formation
4. Structure of Ribosomes
5. CDNA libraries
6. Any one gene cloning methods
7. Transformation
8. Genetic Engineering applications

SECTION – B Answer ALL questions: (5X10=50M)

9. a) Discuss the structure and organization of Prokaryotic DNA?  
(or)  
b) Explain the semi conservative mechanism of DNA replication?
10. a) Discuss the DNA repair mechanisms in detail?  
(or)  
b) Explain the mechanism of induced gene mutations?
11. a) Write about the functions of various types of RNA?  
(or)  
b) Explain the genetic code in detail?
12. a) Explain the gene regularity process?  
(or)  
b) Explain mRNA synthesis?
13. a) Write about Polymerise Chain Reaction ?  
(or)  
b) Explain the basic principles of Genetic engineering?

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II - MID TERM EXAMINATIONS – Sep -2019

MB – MICROBIAL GENETICS & MOLECULAR BIOLOGY

MICROBIOLOGY - II SEMESTER- III

TIME :: 3 Hrs

MAX MARKS :: 75 M

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II - MID TERM EXAMINATIONS – Feb -2018

MB –MICROBIAL BIOCHEMISTRY&METABOLISM

MICROBIOLOGY - I SEMESTER- II PAPER-II

TIME :: 3 Hrs

MAX MARKS :: 75 M

SECTION – A Answer any FIVE of the following (5x5=25M)

1. General characteristics of Carbohydrats
2. Nucleotides
3. Principles of Calorimeter
4. Co-enzymes
5. Alcohol fermentation
6. Turbidometry
7. Biphasic growth
8. ED pathway

SECTION – B Answer ALL questions: (5X10=50M)

9. a) Give a detail account on structure of DNA.  
(or)  
b) Comment on Fatty acids & Lipids.
10. a) Principles & applications of Centrifugation technique.  
(or)  
b) Principles & applications of Paper and thin layer chromatography.
11. a) Give a concise account on properties & classification of Enzymes.  
(or)  
b) Write a brief account on Enzyme inhibition.
12. a) Discuss different methods for measuring microbial growth.  
(or)  
b) What are the nutritional groups in micro organisms.
13. a) Describe Glycolysis.  
(or)  
b) Write a brief about anaerobic respiration & lactic acid fermentation.

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II - MID TERM EXAMINATIONS – Feb -2018

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I - MID TERM EXAMINATIONS – Aug. 2018

SEMESTER - V, CHEMISTRY - V

(INORGANIC, PHYSICAL & ORGANIC CHEMISTRY)

III-B.Sc.(BBC, MBC & MPC)

TIME : : 2 Hrs

MAX MARKS : : 50 M

PART – A (4 x 5 =20M)

Answer any FOUR of the following :

1. Define EAN and give examples for obeying & not obeying EAN.
2. Explain with examples of Hydrate, Ionization & Coordination Isomerism
3. Explain splitting of d-orbital in Tetrahedral Complexes.
4. Write short notes on Tautomerism in Nitroalkanes
5. Give the mechanism of Neff reaction
6. Explain Reduction and Thermal Elimination of Nitrous acid reactions of Nitroalkanes

PART – B (3x10 = 30M)

Answer all the questions

7. a) Explain VBT Theory of Bonding in Complexes  
(or)  
b) Describe CFT Theory and Splitting of d- orbital in Octahedral complexes
8. a) Discuss the Stereoisomerism in C.N: 6 complexes  
(or)  
b) Explain Electronic Absorption of  $[Ti(H_2O)_6]^{+3}$  ion
9. a) Give the preparation of Nitroalkanes and write the reactions with  
1)  $HNO_2$ , 2) Halogenation, 3) Acidic nature 4) Reduction  
(or)  
b) Define Nitroalkanes, give Classification and write the mechanisms of Mannich reaction & Michael condensation

## ST. ANN'S COLLEGE FOR WOMEN.

GORANTLA, GUNTUR -35.

I - MID TERM EXAMINATIONS – Aug. 2018

SEMESTER - V, CHEMISTRY - V

(INORGANIC, PHYSICAL & ORGANIC CHEMISTRY)

III-B.Sc.(BBC, MBC & MPC)

TIME : : 2 Hrs

MAX MARKS : : 50 M

PART – A (4 x 5 =20M)

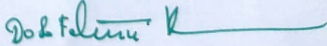
Answer any FOUR of the following :

1. Define EAN and give examples for obeying & not obeying EAN.
2. Explain with examples of Hydrate, Ionization & Coordination Isomerism
3. Explain splitting of d-orbital in Tetrahedral Complexes.
4. Write short notes on Tautomerism in Nitroalkanes
5. Give the mechanism of Neff reaction
6. Explain Reduction and Thermal Elimination of Nitrous acid reactions of Nitroalkanes

PART – B (3x10 = 30M)

Answer all the questions

7. a) Explain VBT Theory of Bonding in Complexes  
(or)  
b) Describe CFT Theory and Splitting of d- orbital in Octahedral complexes
8. a) Discuss the Stereoisomerism in C.N: 6 complexes  
(or)  
b) Explain Electronic Absorption of  $[Ti(H_2O)_6]^{+3}$  ion
9. a) Give the preparation of Nitroalkanes and write the reactions with  
1)  $HNO_2$ , 2) Halogenation, 3) Acidic nature 4) Reduction  
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— PRINCIPAL  
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