GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

(Affiliated to Yogi Vemana University)

Chittor Road, Rayachoty, Annamiah (Dist.)

ACCREDITED BY NAAC WITH "C" GRADE

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DEPARTMENT OF BOTANY

2018-2019

PROGRAMME

ON

SEMINARS.

P.Vanitha gave a seminar on the topic of VIRUS STRUCTURE and REPLICATION.All students are observed and listening to her seminar.

GDC.RAYACHOTY,Dept.of Botany conducted a SEMINAR on various Topics of IBZC students.

Maneesha Gave a seminar on BRYOPHYTES.

No.of students are participated:-2.

The seminar(s) were conducted to raise awareness on [mention the topic, e.g., environmental **sustainability, cybersecurity, mental health, etc.]. The objective was to inform, educate, and engage participants on key issues and practical solutions**.

DEPARTMENTAL ACTIVITY

2018-2019

PROGRAMME

ON

SEMINARS

IIBZC students are participated in the seminar programme,and also S.Mahaboob Basha gave a seminar on the Topic of RUTACEAE FAMILY.

The seminar successfully raised awareness and provided actionable knowledge on [topic]. It is recommended to continue such programs to deepen understanding and encourage proactive behavior.

No.of students are participated:05.

THANK YOU.

GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

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Chittor Road, Rayachoty, Annamiah (Dist.)

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DEPARTMENT OF BOTANY

2019-2020

PROGRAMME

ON

SEMINARS.

No. of students are participated:06.

Importance of Seminars in Academic Growth Developing Critical Thinking Abilities.

- **Developing Communication Skills through Seminars.**
- **Enhancing Public Speaking Confidence.**
- **Learning to Research and Organize Information.**
- **Improving Listening and Note-taking Skills.**
- **Exchanging Ideas and Perspectives.**

T

THANK YOU.

GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

(Affiliated to Yogi Vemana University)

Chittor Road, Rayachoty, Annamiah (Dist.)

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DEPARTMENT OF BOTANY

2021-2022

PROGRAMME

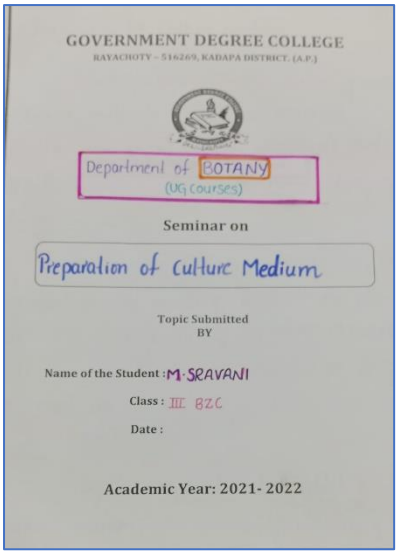
ON

SEMINARS.

The seminar(s) were conducted to raise awareness on [mention the topic, e.g., environmental sustainability, cybersecurity, mental health, etc.]. The objective was to inform, educate, and engage participants on key issues •

Boosting Self-Esteem through SuccessfulPresentations.Understanding Body Language and Non-verbal Mastering the Use of Visual Aids (PPT, charts, etc.).

- **Overcoming Stage Fear and Anxiety**
- **Gaining Exposure to New and Trending Topics**
- **Networking Opportunities with Peers and Experts**
- **Encouraging Lifelong Learning Habits.No.of students participated:10.**


GOVERNMENT DEGREE COLLEGE
RAYACHOTY – 516269, KADAPA DISTRICT. (A.P.)

Department of BOTANY
(UG Courses)

Seminar on

Preparation of Culture Medium

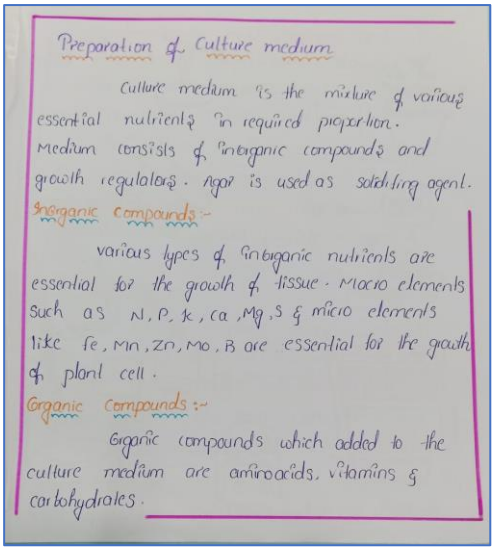
Topic Submitted
BY

Name of the Student : M. SRAVANI

Class : III BZC

Date :

Academic Year: 2021- 2022


Preparation of Culture medium

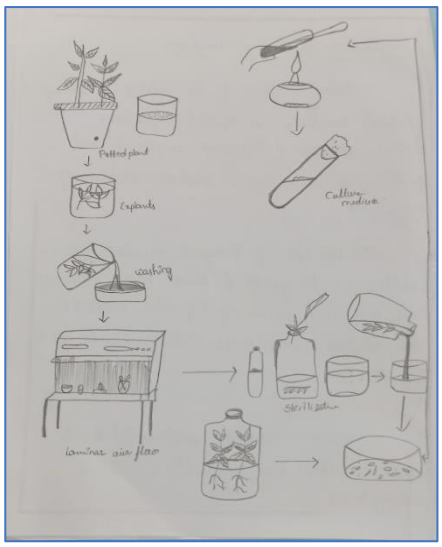
Culture medium is the mixture of various essential nutrients in required proportion. Medium consists of inorganic compounds and growth regulators. Agar is used as solidifing agent.

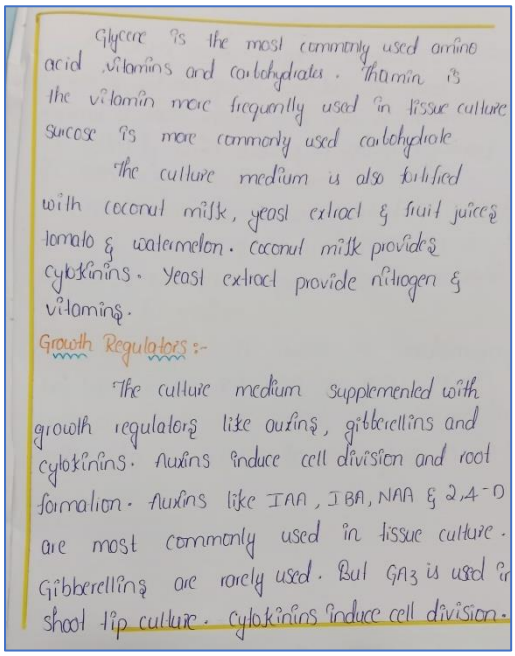
Inorganic Compounds :-

various types of inorganic nutrients are essential for the growth of tissue. Macro elements such as N, P, K, Ca, Mg, S & micro elements like Fe, Mn, Zn, Mo, B are essential for the growth of plant cell.

Organic Compounds :-

Organic compounds which added to the culture medium are amino acids, vitamins & carbohydrates.

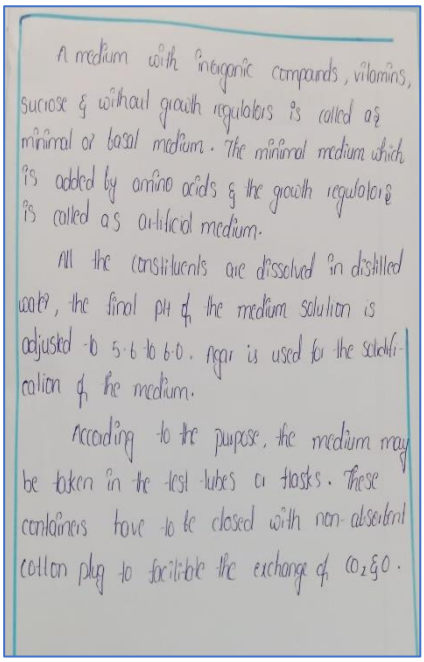



Glycine is the most commonly used amino acid. Vitamins and carbohydrates. Thiamin is the vitamin more frequently used in tissue culture. Sucrose is more commonly used carbohydrate.

The culture medium is also fortified with coconut milk, yeast extract & fruit juices tomato & watermelon. Coconut milk provides cytokinins. Yeast extract provide nitrogen & vitamins.

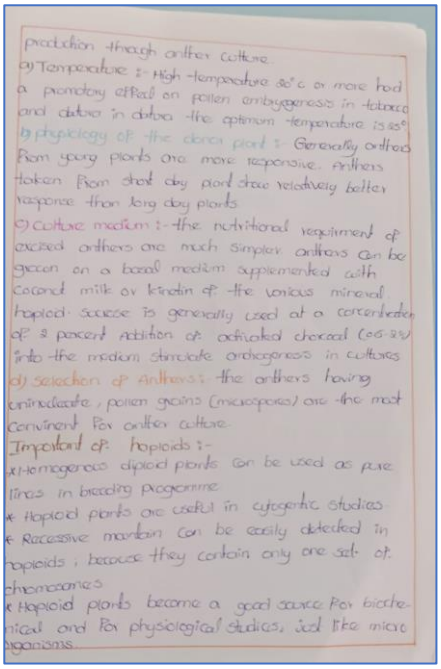
Growth Regulators :-

The culture medium supplemented with growth regulators like auxins, gibberellins and cytokinins. Auxins induce cell division and root formation. Auxins like IAA, IBA, NAA & 2,4-D are most commonly used in tissue culture. Gibberellins are rarely used. But GA3 is used in shoot tip culture. Cytokinins induce cell division.


A medium with inorganic compounds, vitamins, sucrose & without growth regulators is called as minimal or basal medium. The minimal medium which is added by amino acids & the growth regulators is called as artificial medium.

All the constituents are dissolved in distilled water, the final pH of the medium solution is adjusted to 5.6 to 6.0. Agar is used for the solidification of the medium.

According to the purpose, the medium may be taken in the test tubes or flasks. These containers have to be closed with non-absorbent cotton plug to facilitate the exchange of CO_2 & O.


production through anther culture.

a) Temperature :- High temperature 35°C or more had a promotory effect on pollen embryogenesis in tobacco and datura in datura the optimum temperature is 35°

b) physiology of the donor plant :- Generally anthers from young plants are more responsive. Anthers taken from short day plant show relatively better response than long day plants.

c) culture medium :- the nutritional requirment of excised anthers are much simpler. anthers can be grown on a basal medium supplemented with coconut milk or kinetin of the various mineral. haploid. Sucrose is generally used at a concentration of 3 percent addition of activated charcoal (0.05-3%) into the medium stimulate embryogenesis in cultures.

d) Selection of Anthers :- the anthers having uninucleate, pollen grains (microspores) are the most convinient for anther culture.

Important of haploids :-

* Homogeneous diploid plants can be used as pure lines in breeding programme.
* Haploid plants are useful in cytogenic studies.
* Recessive mutation can be easily detected in haploids, because they contain only one set of chromosomes.
* Haploid plants become a good source for biochemical and for physiological studies, just like micro organisms.

Overcoming Stage Fear

- Breathing techniques
- Positive visualization
- Practice routines

. Panel Discussion

- Experienced speakers share their seminar journeys
- Open floor for audience questions

. Valedictory Session

THANK YOU

- Feedback collection
- Distribution of participation certificates
- Vote of thanks.

GOVERNMENT DEGREE COLLEGE,
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DEPARTMENT OF BOTANY

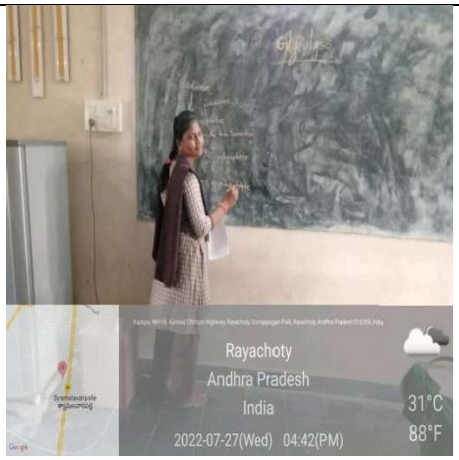
2022-2023

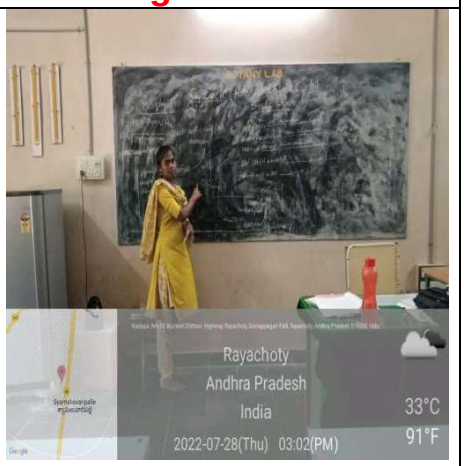
PROGRAMME

ON

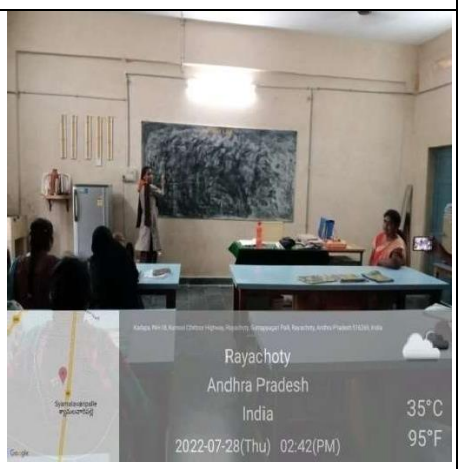
SEMINARS.

C.Manesha . **NNP.M. Rafi** **S.Nageswari**

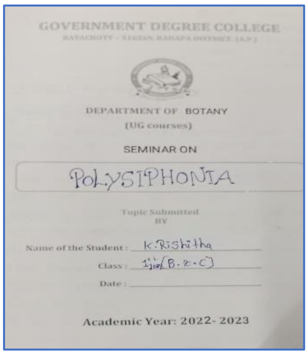


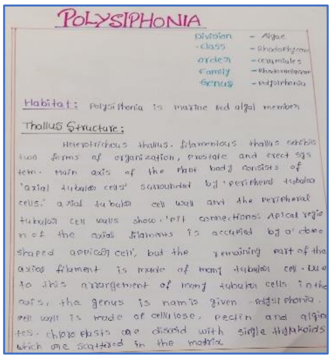


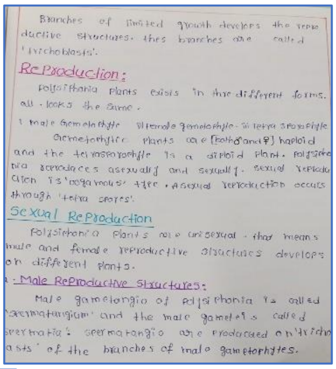
S.Rubena **Students** **P.Sneha latha**

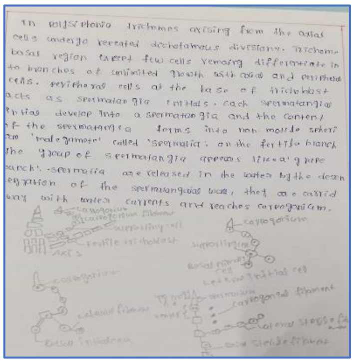


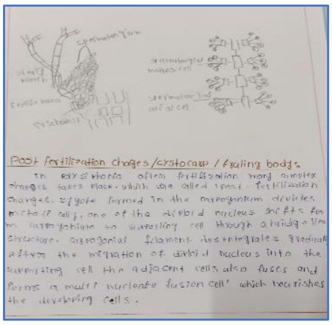
Students are gave seminars on various topics .All students are actively participated in this programme. No.of students are participated:20.

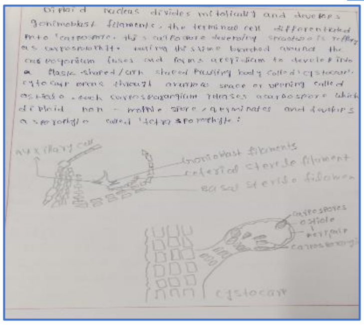


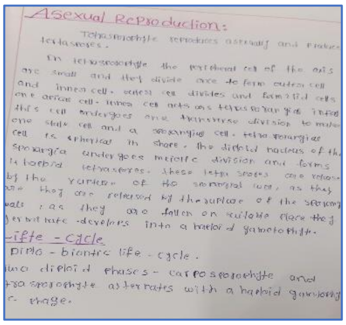


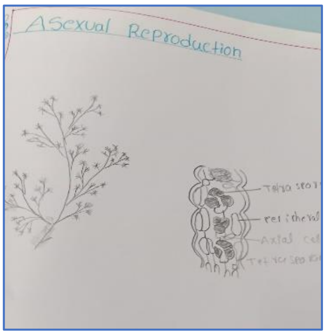












Brief Report

on Polysiphonia :Polysiphonia is a genus of red algae belonging to the division **Rhodophyta**.

1. It is commonly found in **marine environments**, particularly attached to rocks, shells, and other submerged objects in shallow waters.
2. Polysiphonia is characterized by its **filamentous, branched structure**, which appears bushy and often reddish in color.
3. The body of Polysiphonia is composed of **multicellular filaments** arranged in a siphonous (tube-like) manner, hence the name "Polysiphonia" (meaning many tubes).
4. Each filament typically consists of a central axis surrounded by **pericentral cells**, giving it a multi-celled thickness.
5. The genus exhibits **triphasic alternation of generations**, which includes gametophyte, carposporophyte, and tetrasporophyte stages.
6. **Male gametes** (spermatia) are produced in spermatangia, while **female structures** (carpogonia) capture the spermatia for fertilization.
7. After fertilization, the diploid **carposporophyte** develops on the female gametophyte and produces carpospores.
8. These carpospores grow into the diploid **tetrasporophyte**, which produces haploid tetraspores by meiosis.
9. Tetraspores then develop into new **male and female gametophytes**, completing the life cycle.
10. Polysiphonia shows **polysiphonous construction**, meaning each segment has multiple longitudinal cells.
11. It plays an important role in **marine ecosystems** as habitat and food for various small organisms.
12. Some species of Polysiphonia are used as indicators of **water quality and pollution**.
13. The study of Polysiphonia contributes to understanding the complex life cycles and reproduction of **red algae**.

THANK YOU.

GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

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DEPARTMENT OF BOTANY

2022-2023

PROGRAMME

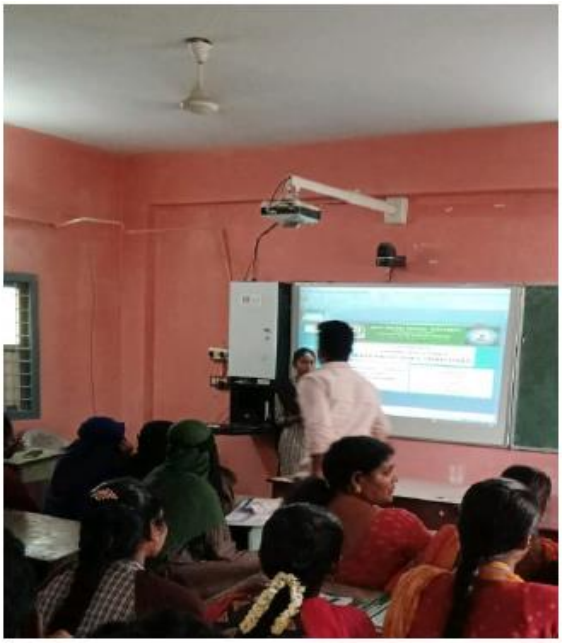
ON

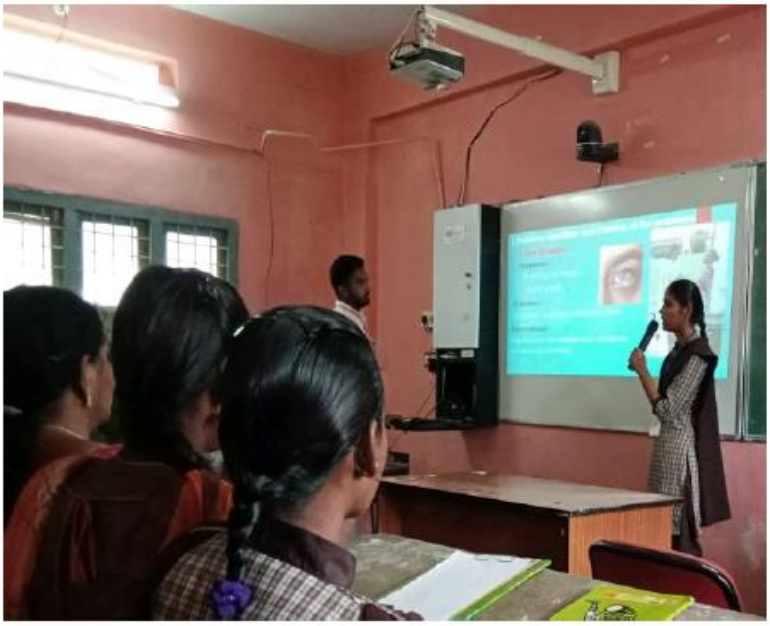
SEMINARS.

CSP PRESENTATION.

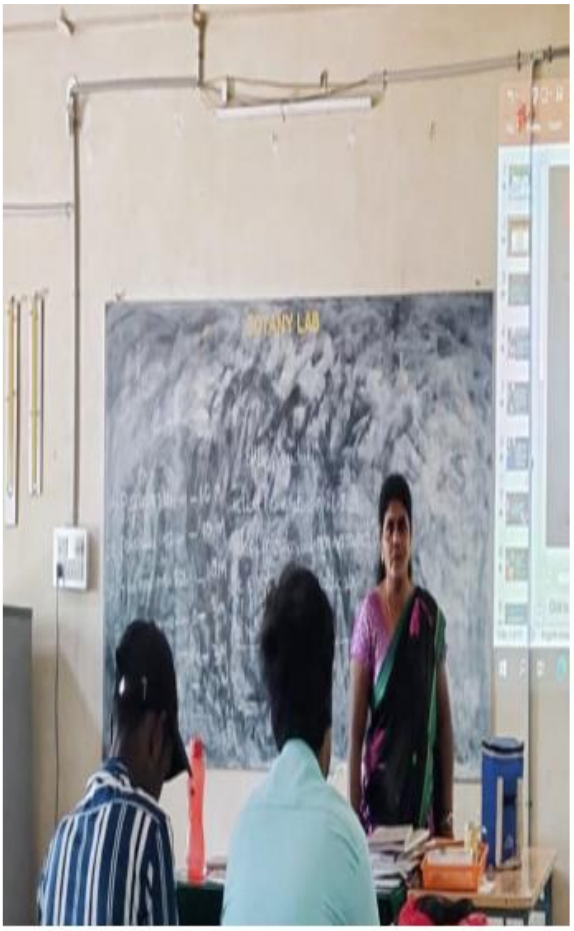
GDC. Rayachoti Department of Botany G. Keertana Explain about the CSP Project in ıe presence of Principal Madam and CSP Committee Members and displaying her project n herbal plants.

Together with S.Faheena and P. Rati, they identified the diseases of plants and showed them what kind of cures they show to humans as well as what role they play in biodiversity by using them, and remedy.





.Suhail and G. Keertana together did a CSP project and put that project in PPT in the resence of the committee members and the principal Explaining is done.



After explaining about the community service project through PPT and its importance, a photo was taken in the presence of the committee members i.e. CSP project committee member and principal of GDC.Rayachoti and the students. Also, this project should know the most useful things and consider what kind of things in the society.

No. of students participated: - 25

CSP Committee members: - Dr.M.Munya Naik

B.Kiran Kumar

S.Farooq Basha

This programme CSP Mentor: - Smt. BATTU. SHANTHA KUMARI

All teaching faculty and all Groups of students are participated in this COMMUNITY SERVICE PROJECT.

The programme was made a success in the presence of the Principal Madam: - Dr.HARSHA LATHA GDC Rayachoty.

THANK YOU.

GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

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Chittor Road, Rayachoty, Annamiah (Dist.)

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DEPARTMENT OF BOTANY

2023-2024

PROGRAMME

ON

SEMINARS.

GDC.RAYACHOTY,

IIIBZC5th sem Students and Ist sem students both are given seminars on varios topics.They are participated very activly and enthusiastically in this programme.

No.of students are participated;06.

How to Prepare for a Seminar

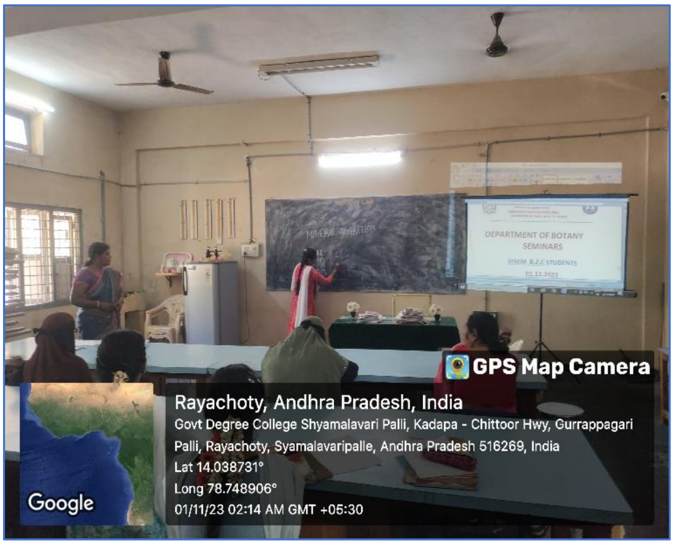
- Topic selection
- Research methods
- Structuring your presentation
- Using visual aids effectively

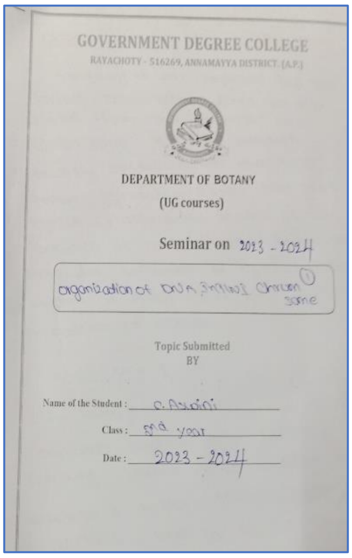
6. Interactive Workshop

- Mock seminar presentations
- Peer reviews and feedback
- Tips on body language and voice modulation

7. Session 5: Overcoming Stage Fear

- Breathing techniques
- Positive visualization
- Practice routines





GOVERNMENT DEGREE COLLEGE

RAYACHOTY - 516269, ANNAMAYYA DISTRICT, (A.P.)

DEPARTMENT OF BOTANY

(UG courses)

Seminar on 2023 - 2024

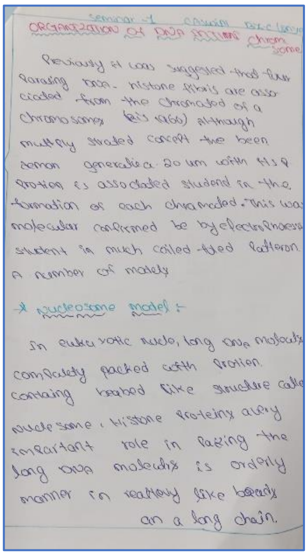
organization of DNA in ... Chromosome

Topic Submitted BY

Name of the Student : C. Aswini

Class : 3rd year

Date : 2023 - 2024



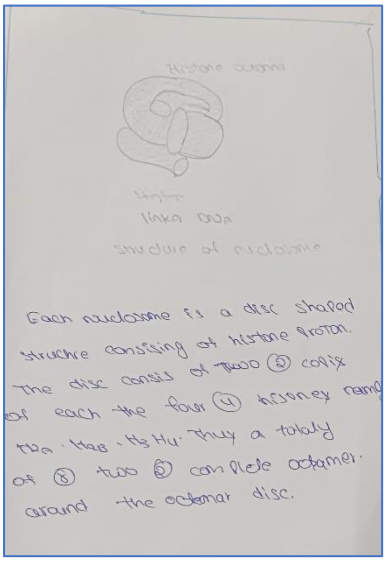
Seminar - 1 C. Aswini B.Z.C (Bio)

ORGANIZATION OF DNA IN ... Chromosome

Previously it was suggested that ... DNA - histone fibrils are associated from the chromatid of a chromosome (... 1960) although ... concept ... been ... generalie a 20 nm width ... protein is associated ... in the formation of each chromatid. This was molecular confirmed ... by electrophoresis ... called ... a number of ...

* Nucleosome model :-

In eukaryotic nucleus, long DNA molecules completely packed with protein containing beaded like structure called nucleosome. Histone proteins ... important role in packing the long DNA molecules in orderly manner in ... like beads on a long chain.

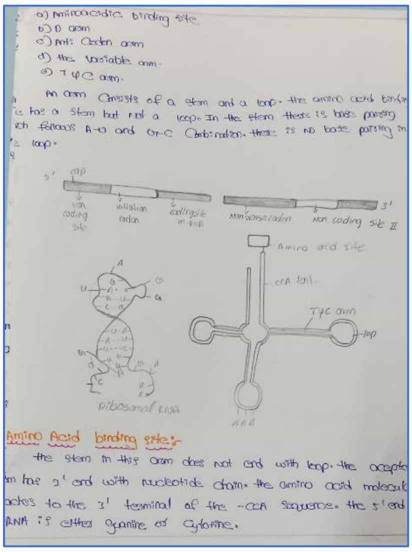


Histone ...

linker DNA

structure of nucleosome

Each nucleosome is a disc shaped structure consisting of histone protein. The disc consists of two (2) copies of each the four (4) histone named H2a, H2b, H3, H4. Thus a totally of (8) two (2) complete octamer around the octamer disc.



a) Aminoacidic binding site
b) D arm
c) Anti Codon arm
d) the variable arm.
e) TψC arm.

An arm consists of a stem and a loop. the amino acid binding ... has a stem but not a loop. In the stem there is base pairing ... follows A-U and G-C Combination. there is no base pairing in ... loop.

5' cap; non coding site; initiation codon; coding site in ...; Non sense codon; Non coding site II; 3'

Amino acid site; CCA tail; TψC arm; loop; AAA

Ribosomal RNA

Amino Acid binding site:-

the stem in this arm does not end with loop. the acceptor ... has 3' end with nucleotide chain. the amino acid molecule ... to the 3' terminal of the -CCA sequence. the 5' end ... RNA is either Guanine or Cytosine.

No.of students are participated;06.

THANKYOU.

GOVERNMENT DEGREE COLLEGE, RAYACHOTY,KADAPA(D.T)

(Affiliated to Yogi Vemana University)

Chittor Road, Rayachoty, Annamiah (Dist.)

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DEPARTMENT OF BOTANY

2024-2025

PROGRAMME

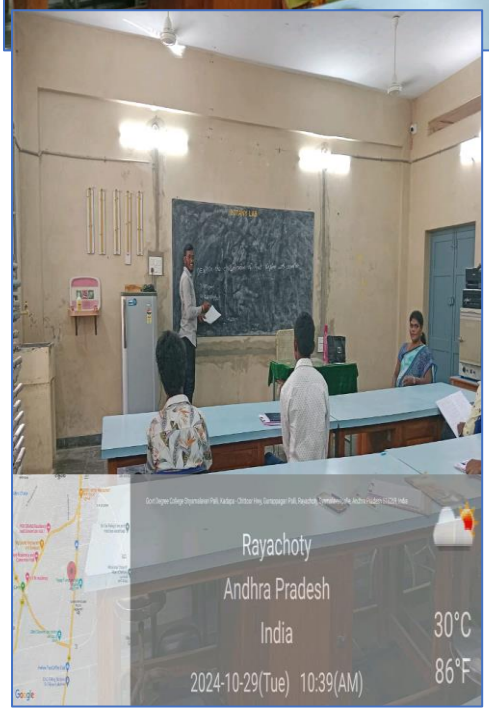
ON

SEMINARS.

GDC.RAYACHOTY,

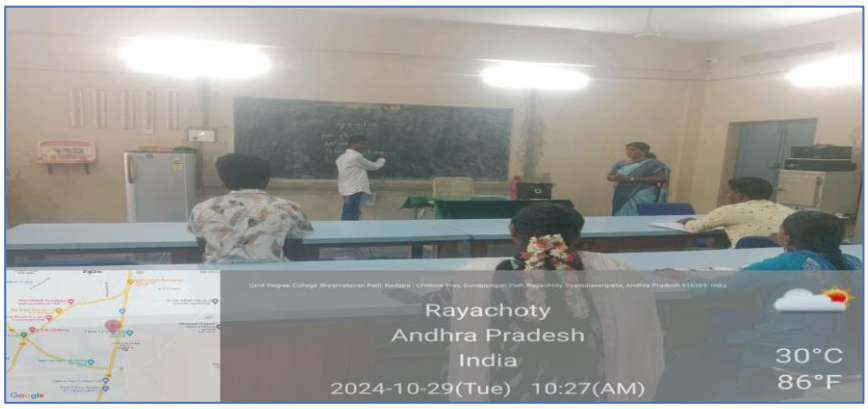
IIIBZC Students and Ist sem students both are given seminars on varios topics.They are participated very activly and enthusiastically in this programme.

Np.of students are participated:08.



Objectives:

- To make participants aware of the importance of attending and presenting at seminars.
- To develop key skills needed for seminar success.
- To boost confidence in public speaking and knowledge sharing.



1: What is a Seminar?

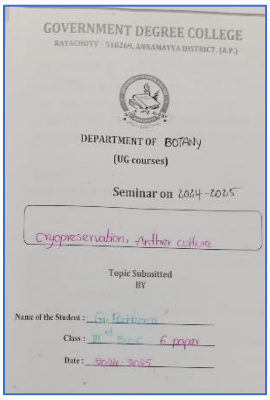
- Definition and Types (Academic, Professional, Technical, etc.)
- Difference between Seminar, Workshop, and Conference.
- Importance in career and academic growth.

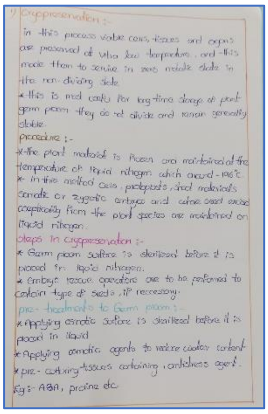
2: Benefits of Participating in Seminars

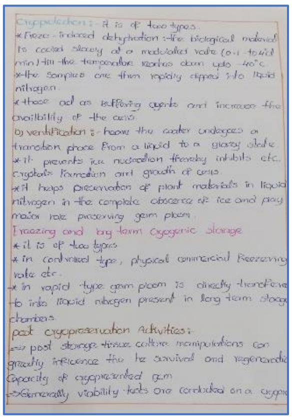
- Enhancing knowledge
- Networking opportunities
- Gaining presentation skills
- Building confidence

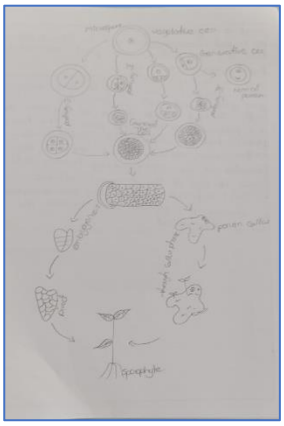
4. Session 3: Skills Needed for Seminar Success

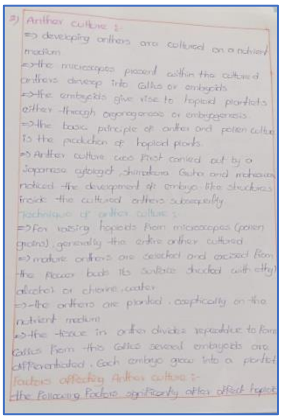
- Public Speaking Skills
- Time Management
- Research and Content Creation
- Slide Preparation (PowerPoint/Canva)
- Handling Q&A Sessions

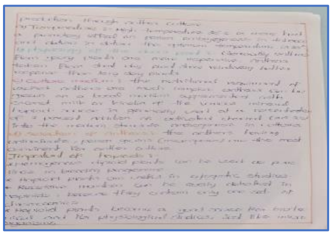

GOVERNMENT DEGREE COLLEGE
DEPARTMENT OF BOTANY
(UG courses)
Seminar on 2024-2025
Cryopreservation, Anther culture
Topic Submitted BY











No.of students are participated:08.

THANK YOU.