



1.3.2 Number of courses that include experiential learning through project work/field work/internship during the year

Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Year of offering	Name of the student studied course on experiential learning through project work/field work/internship
BSC	BSC3	Plant Breeding (Botany)	2020-21	Akshata Hubballi Akshata Kumbar Bhagyashree Biradar Asha Lamani
		Plant Tissue Culture(Botany)	2020-21	Kavita Teggimath Kavita Hiremath Jyoti Hiremath Mahajabeen Bhagwan
		Weed Management(Botany)	2020-21	Zebamuskan Soudagar Vidyashree Patil Yashodha Biradar
		Agro Bacterium(Botany)	2020-21	Sharanabasaveshwari S Suman Shastri
		Immuno Techniques(Botany)	2020-21	Yashodha Biradar Vidyashree Patil Zebamuskan Soudagar Tejashwini Talikoti
		Genetic Improvement Industrial Microbes(Botany)	2020-21	Surekha Badawadagi Swati Rathod Sunanda Hokrani
		Spices(Botany)	2020-21	Appaji Malagi Basavaraj Walikar Balu Shivanagi Ijajahmad Khaji
		Vegitable Oils(Botany)	2020-21	Basanti Janjinagaddi B.N. Ganti Sahana Talikoti Bhagyashree Chimmalagi,
		Tannines(Botany)	2020-21	Shridhar Biradar Sabatasmiya Shivanagi Pooja Shidaraddi Sharanabasaveshwari
		Streroids(Botany)	2020-21	Chaitra Sandimani Asha Lamani Bhagyashree Biradar Jyoti Hiremath
		Horticulture Department at Narayanapur Field Visit	2020-21	50
		Project work on Ecology Krishna River (Zoology)	2020-21	Ashwini Lamani & Group B.Sc Vth Sem
Project work on Microscopy (Zoology)	2020-21	Akshata R Kumbar & Group		

(Signature)
Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

(Signature)
PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



B.Sc	B.Sc3	Project work on Vermiculture (Zoology)		Aishwarya Sajjan & Group
		1. Sterilization of water by using Bleaching Powder (Chemestry)	2020-21	Abdulrajak Nadaf & Groups B.Sv VI Sem
		2. Study of presence of Insecticides and pesticides in fruits and Vegetables.(Chemestry)	2020-21	Shivaraj A Agni & Group B.Sc VI Sem
		3. To study the Amount of case in present in defferent samples of milk(Chemestry)	2020-21	Ashwini Gouroji & Group B.Sc VI Sem
		4. Study of the Effect of Acid and bases on the tensile Strength of fibers(Chemestry)	2020-21	Mahajabeen Bhagwan & Group B.Sc VI Sem
		A CASE STUDY OF KARNATAKA STATE FOREST (40 STD)	2020-21	AMBRISH LAMANI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	ANAND
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	ARVIND
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	BASAVARAJ PUJARI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	BHAGYASHRI BIRADAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	CHANDRASHEKHAR KENABENCHI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	DANESHWARI KAPANUR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	DEEPA
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	DHANARAJ
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	GIRIMALLANAGOUDA
A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	HANAMANTARAYA		



B.Sc	B.Sc3	A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	JAGADISH
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	KAILASH
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	KALING MADAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	KASHINATH MADAGI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	MAHANTESH MALAGI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	MALLIKARIJUN BYAKOD
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	MOUNESH
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	MANOJ SAJJAN
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	MUSTAKALI BABU
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	NINGAMMA
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	PRVEEN SAJJAN
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	PRIYANKA TAMADADDI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	RAMESH MANAGULI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHANKRAMMA PATIL
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SANGANNA BOVER
A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SANTOSH DODAMANI		



B.Sc	B.Sc3	A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SAVITA GODIHAL
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SAVITA TALAWEAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SAMEER TARANAL
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHRNABASUI OLEKAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHIVAKUMAR RATHOD
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHIVAKUMAR RATHOD
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHIVARAJ HUGAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHRIDEVUI WALIKAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SHRISHAIL HADALAGERI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SIDDAPPA PUJARI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SUMITRA BIRADAR
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	SUNIL CHALAWADI
		A CASE STUDY OF KARNATAKA STATE FOREST	2020-21	VITHAL RATHOD
Programme name	Program Code	List of students undertaking project work/field work/Internship	Subject	No.Of Student Enrolled for field Project/ Intership
BSC	BSC4	Mirza galib	Urdu	1
		Munshi Premachand		1
		Maulana Altaf Hussaub hall		1
		Dr. Allamma Iqbal		1
		Shamsurrahman Foruque		1



		Faiz Ahemed Faiz		1
BA	BA3	Kuntoji Basaveshwar Temple	History	4
		Freedom Fighters		1
		Banjara Culture		3
BA	BA3	The survey of Gramapanchayati Election 2020	Political Science	6
		Awareness of Gram Panchayat		3
		Amendment method of Indian Constitution		1
		National parties in india		1
		Nature of political parties in india		1
		Nature of scope and importance of public Administration		1
		Features of parlimentary working of parlimentary democrocy		1
		Power and functions of election commission		1
		Aristotle views in the classification of constitution		1
		Border disputes of Karnataka and Maharastra		1
		Water disputes of Kaveri and Mahinadi		1
		International Relation		1
		Collective Security		1
		Powers and functions of diplomacy		1
BA	BA3 &4	The definition of joint family	Sociology	4
		The system of marriage		2
		The system of Indian caste and religion		1
		Hygiene		2
		Religion		2
		Womens Education		3
		Gender brutality assassination		1
		Gender discrimination		1
		Kalapana chawla		1
		Indira Gandhi		2
		Corruption		4
		HIV		1
		The problems of Urban area in India		1
		Terrorism		1
The corruption of public domain	1			



BA	BA3 &4	Social Problems	Sociology	2
		Problems of residential		1
		The tendencies and methods of urbanization		1
		Social Issues		1
		The tendencies and methods of urbanization		1
		Urbanization in India		1
		The problems of urban life		3
		urban planning and Urban Development		8
		Village to urban migration		4
BA	BA3	Monuments of Vijayapur District	Field Visit History	3
		History of Vijayapur		4
		History of Shorapur		1
BA	BA3&4	Project report on APMC-MBL	Economics	1
		Field Visit report solar energy plant		1
		Field Visit report on pomogranate farm		1
		Field visit report on Neem oil plant.		1
B.COM	B.COM3&4	Project report in implications of Goods and service Tax in Automobile industry of India	Economics	1
		Meaning and History of Income Tax		1
		Analysis of GST Rates, Valuation GST and Input Tax credit and Tax Invoice		1
B.COM	B.COM3&4	History of Income Tax	Commerce	1
		How to Income Tax Payble		1
		Field visit to NAGUR SUPER MARKET		1
		Field visit to SRI SAI DHAL INDUSTRY MUDDBIHAL		1
BA	BA I	Project work on Central Budget-2021-22 (19 students)	Economics	1
BA	BA3	Project work on Central Budget-2021-22 (14 students)		1
BA	BA V	Project work on Central Budget-2021-22 (07 students)		1



BA	BA V	Litrature and Ideology	English	1
		Fancy and Imagination		1
		Cileridge biographic Litrature		1
		Society and History		1
		New Critism and Structuralism		1
B.Sc	B.Sc V	Raman Effect	Physics	6
		Lasers		6
		Nano Physics		6
B.Sc	B.Sc V	Maathematical Functions	Mathematics	5
		Application of Derivatives		5
		Curves		5
		Standard Functions		5
B.Sc	B.Sc II	Maneyangaladalli Aushadhivana	Kannada	75
		The Richest Culture and Tredition		Tejashwini Hiremath
		The History of Bidarakundi Gram Panchayat		Siddanagouda Biradar
		Hampi Study tour		Field Visit 34 Students
BA	BA III	The History of Basaveshwar Temple in Hokrani	Education	Kumar Ramesh Firangj Basavaraj Gudlumani
		The Project on Govt HPS Kesapur		Manjula Waddar Sunanda Pojari
BA	BA	Cast of leaving index Number	Statistics	Rahul Naik
		Control Chart for Varrables		Laxmi Biradar
		Statistical Quality control		Reshma Janvekar
		Intraval Estimation		Shantu Wadavadagi
		Analysis of Variance		S.B. Patil
		Nirad Chopra		Triveni



BA	BA II	Meerabai Chalu	Hindi	Akshata
		P.B Sindhu		Pooja
		Ravi Dhaya		Abhishek

B.Sc. V Semester (w.e.f. 2019 – 20)

Botany Paper - I

Paper-I: Plant Breeding, Tissue Culture and Horticultural Practices.

50

Hrs

Unit I: Plant Breeding: History and objectives. Introduction, Selection (Pure line, Mass Selection), Hybridization- inter specific and inter generic. Mutational & Polyploidy breeding. Germ plasm and its maintenance. Pollen Bank, Quarantine method.

10 Hrs.

Unit II: Plant Tissue Culture: Scope and Significance. Basic Aspects and Cellular totipotency (Shoot tip, Embryo and Haploid culture techniques). Differentiation and morphogenesis.

10 Hrs.

Unit III: Introduction to Horticulture, Nursery management and importance.

Methods of propagation – vegetative – rhizome, bulb, corm and sucker (natural). Artificial- Cutting, layering, grafting and budding. Bonsai – methods and importance. Nursery management: Introduction, types of nurseries and cultural practices. Seed (propagule) collection, storage and treatment. Manures, fertilizers and pesticides. Methods of irrigation – drip, sprinkler and flood

12 Hrs.

Unit IV: Green House Technology – Introduction, advantages and limitations. Types of Green Houses- Green House structure, principle Greenhouse technology as applied to ornamental, vegetable and fruit plants.

08 Hrs.

Unit V: Harvest Technology and Weed Management: Harvest Technology: Flower and fruit plants management. Artificial ripening, maturity indices, methods of picking. Post-harvest technology and management of fruits: grading, processing, storage and packing. Weed Management:

Introduction and significance. Invasive weeds – concept and causes of their dominance. Weed control – physical, chemical and biological methods.

10 Hrs.

Practicals:

1. Study of methods of propagation with help of tubers, bulbs, rhizomes, corms, suckers, runner and offset.
2. Study of propagation by cutting, layering, grafting and budding.
3. Methods of emasculation and bagging for cross-pollination.
4. Morphology and anatomy of dry and wet stigma.
5. Morphology and anatomy of solid and hollow styles.
6. Study of pollination types.
7. Demonstration of tissue culture techniques.
8. Visit to nursery - poly house /Green house and tissue culture lab.
9. Preparation of MS media for culture. 10. Bonsai techniques.


Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,

M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.

S.G.V.C V.P TRUST
M, G.V.C.ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDABIHAL 586212



DEPARTMENT OF BOTANY

PROJECT WORK OF THE YEAR 2020-21

Sl. No	Reg. No	Name of the students	Topic
01	S1827617	Akshata Hubballi	Plant Breeding
02	S1827614	Akshata Kumbar	
03	S1827641	Bhagyashree Biradar	
04	S1827630	Asha Lamani	

Sl. No	Reg. No	Name of the students	Topic
01	S1827671	Kavita Tegginamath	Plant Tissue Culture
02	S1827669	Kavita Hiremath	
03	S1827665	Jyoti Hiremath	
04	S1827647	Mahajabeen Bhagwan	

Sl. No	Reg. No	Name of the students	Topic
01	S1827828	Zebamuskan saudagar	Weed Management
02	S1827813	Vidyashri Patil	
03	S1827827	Yashoda Biradar	

Sl. No	Reg. No	Name of the students	Topic
01	S1827766	Sharanabasaveshwari S	Agrobacterium
02	S1827789	Suman Shastri	

Sl. No	Reg. No	Name of the students	Topic
01	S1827827	Yashoda Biradar	Immuno Techniques
02	S1827813	Vidyashri Patil	
03	S1827828	Zebamuskan Saudagar	
04	S1827806	Tejashwini Talikoti	



Sl. No	Reg. No	Name of the students	Topic
01	S1827797	Surekha Badawadagi	Genetic improvement in industrial microbes
02	S1827802	Swati Rathod	
03	S1827792	Sunanda Hokrani	



Sl. No	Reg. No	Name of the students	Topic
01	S1723418	Appaji Malagi	Spices
02	S1723434	Basavaraj Walikar	
03	S1723429	Balu Shivanagi	
04	S1723467	Ijahmad Khaji	

Sl. No	Reg. No	Name of the students	Topic
01	S1723431	Basanti Janjinagaddi	Vegetable Oils
02	S1723428	B.N. Ganti	
03	S1723546	Sahana Talikoti	
04	S1723435	Bhagyashree Chimmalagi	
05	S1723439	Bhagyashree Kumbar	

Sl. No	Reg. No	Name of the students	Topic
01	S1827774	Shrdhar Biradar	Tannines
02	S1827737	Sabatasmiya Shivanagi	
03	S1827715	Pooja Shidaraddi	
04	S1827766	Sharanabashwari Shidaraddi	
05	S1827700	Ninganagouda Biradar	

Sl. No	Reg. No	Name of the students	Topic
01	S1827647	Chaitra Sandimani	Steroids
02	S1827630	Asha Lamani	
03	S1827641	Bhagyashree Biradar	
04	S1827665	Jyoti Hiremath	
05	S1827663	Jyoti Goudra	

S.G.V.C Vidya Prasarak Trust's

**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL-586212**



DEPARTMENT OF BOTANY

CERTIFICATE

Examination Seat No: S1827630

Class: B.sc 5th sem

This is to Certify that, Mr/Mrs. **ASHA LAMANI**

Has satisfactorily completed Project work on " **PLANT BREEDING**

"Under my supervision in M.G.V.C Arts, Commerce
and Science College Muddebihal year 2020-2021

Staff Member in charge

Head Department of Botany
Head of the Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist: Bijapur.

Co-ordinator
Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



Project work on :

Plant breeding.

Topics:-

***Hybridisation:**

***Interspecific:**

***Intergeneric:**

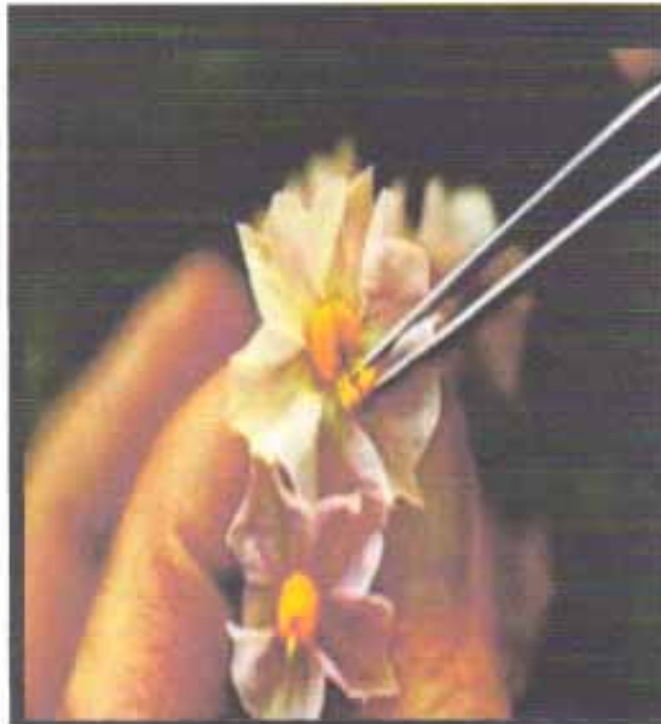
***Mutation:**

***Polyploidy breeding:**



3) Emasculation: This is the 3rd step in the hybridisation technique.

Emasculation is defined as the removal of stamens from the female parents before they burst and shed their pollen.



*The process of emasculation is prevent self fertilization therefore is usually performed a few hours before the anthers ripe and Denise and self-pollinate the stigma. The floral buds which are expected to open on the following day are selected for the process of emasculation



POLYPOIDY BREEDING:

Polyploidy is a condition which the cells of an organisms have more than two paired (homologous) set of chromosomes.

*Most species whose cells have nuclei are diploid meaning they have two set of chromosomes one is inherited from each plants .Some organisms are polyploidy and polyploidy is especially common in plants.

*Polyploidy may occur due to abnormal cell division either during mitosis or commonly during metaphase1 in meiosis.

*In addition it can be induced in plants and cells cultures by some chemicals eg- Colchicine.which can result in chromosome doubling.

*Polyploidy type labelled according to the number of chromosome set in the nucleus.

Classifications :

Autopolyploid: Autopolyploid are polyploidy with multiple chromosomes sets derived from a single taxon. Rarely Autopolyploids arise from spontaneous, somatic genome doubling, which has been observed in apple bud sports. This is also the most common pathway of artificially induced polyploidy, where method such as protoplast fusion or treatment with colohicine,mitotic inhibitors are used to discrept normatic division which results in the production of polyploidy cells

* Application of Autopolyploidy in crop improvement:

*Monoploids are weaker than diploid and are little agricultural value.

*They used for developing homozygous diploid lines.

*Triploid -These are formed by the hybridisation between tetraploids($4n$) and ($2n$) diploid they are generally highly sterile, the triploid do not produce true seeds all most all the seeds are small. This feature is useful in the production of seedless watermelons and some times they may be more vigorous than normal diploid

*Allopolyploidy: Allopolyploidy or amphipolyploids or hetero polyploids are polyploids with chromosomes derived from two or more diverged taxa.

Allopolyploidy: Allopolyploidy or amphipolyploids or heteropolyploids are polyploidy with chromosomes derived from two or more diverged taxa.*Allopolyploidy have genomes from two or more species. Some success has been obtained as is evident from the



PLANT TISSUE CULTURE

VINAY SHARMA
AFROZ ALAM



Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

PRINCIPAL,

M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



S.G.V.C Vidya Prasarak Trust's

**M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL-586212**

DEPARTMENT OF BOTANY

CERTIFICATE

Examination Seat No: **S1827665**

Class: **BSc Vth SEM**

This is to Certify that, Mr/Mrs. **JYOTI .Y. HIREMATH**

Has satisfactorily completed Project work on "**PLANT TISSUE CULTURE
SCOPE AND SIGNIFICANCE . BASIC ASPECTS AND
CELLULAR TOTIPOTENCY**" Under my supervision in M.G.V.C Arts, Commerce
and Science College Muddebihal year 2020-2021

Staff Member in charge

Head Department of Botany

Head of the Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist: Bijapur.

VALUED
Examiner's Date:
1. _____
2. _____



Plant tissue culture

Plant tissue culture is in-vitro cultivation of plant cell or tissue under aseptic and controlled environment conditions in liquid or an semisolid well defined nutrient medium for the production of primary and secondary metabolites or to regenerate plant.

Scope of tissue culture.

- The production of extra copies of plants that produce good flower, fruits or have other desirable traits.
- To quickly produce mature plants.
- The production of multiple of plants in the absence of seed or necessary pollinators to produce seeds.
- The regeneration of whole plant from plant cell that have been genetically modified.
- Production of plant from seeds that otherwise have very low chances of germinating and growing i.e. orchids and nepenthes.
- To clean particular plants of viral and other infection and quickly multiply these plants as cleaned stock for horticulture and agriculture.

Culture systems



- Callus culture

1. Callus is an unspecialized, unorganized growing and dividing mass of cells.
2. Can be maintained indefinitely.
3. No photosynthesis and grow in dark.
4. Can be used to isolate single totipotent cells.
5. Many cultures lose their potential for differentiation during continued subculture due to epigenetic changes.
6. Difficult to follow many cellular events during its growth and development phases.
7. A callus cell culture is usually sustained on gel medium.
8. Plant growth regulators, such as auxins, gibberellins and cytokinins are supplemented into the medium to initiate callus formation or somatic embryogenesis.



S.G.V.C Vidya Prasarak Trust's

M.G.V.C ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL-586212

DEPARTMENT OF BOTANY

CERTIFICATE

Examination Seat No: S1827813

Class: B.sc 5th sem

This is to Certify that, Mr/Mrs. **Vidyashri. S. Pati**

Has satisfactorily completed Project work on "Weed management"

"Under my supervision in M.G.V.C Arts, Commerce and Science College Muddebihal year 2020-2021

Staff Member in charge

Head Department of Botany
Head of the Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist: Bijapur.

Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



Content

- ✓ **Introduction of weed**
- ✓ **Weed control**
- ✓ **Losses of agriculture**
- ✓ **Problems due to weed**
- ✓ **Principles of weed management**
 - ❖ Prevention
 - ❖ Eradication
 - ❖ Control
- ✓ **Invasive weed concept**
 - ❖ Perception to cause harm
 - ❖ Environmental harm
- ✓ **Methods of weed**
 - ❖ Mechanical method
 - ❖ Cultural method
 - ❖ Chemical method
 - ❖ Biological method
- ✓ **Classifications of weed**
 - ❖ Annual weed.
 - ❖ Perennial weed
 - ❖ Biennial weed

Mechanical method :-



Many specialized machines and attachment are used in Forest vegetation management, including brush rakes, angle blades, shearing blades, rolling brush cutters and shredders. Large offset disk and integral plows and sometime used. In addition, chain saws, axes, brush hooks, powered brush cutters, hatchets and other hand tools can be used in weeding operations. On gentle slopes, mechanical means of site preparation and rehabilitation are generally sufficient to remove debris control weeds, prepare seedbeds, reduce soil compaction caused by logging and carry out minor land levelling operations.

- Tillage :-It remove the weed from the soil it causes injury to root and prunninh to shoot of weeds are buried also at the time of tillage .
- Hoeing :- Hoeing is widely used weeding tool for centuries. It is very useful for annual and biennial weeds. The under ground growth is not much affected.
- Hand weeding :- It is done by pulling out weed from the field pulling out is done with the help of kurpi.
- Digging :- It is practiced especially for the removal of shrubby and stubby nobody perennials.
- Mowing :- The process of moving is done by mower machine and hand blade having long cutting edge about one metre.
- Burning :- It destroyed aerial portion of the weed directly through the fiance of the fire and under ground portion through the heat effect.



Classification of weeds :-

1) Annual weeds :-

These weeds complete their life cycle in one year. They grow vigorously in one year and form seeds. And later these seeds will germinate and grow as an individual plant in the next consecutive year. The annual weeds may be divided into 2 groups.

a) Summer annual weeds -

- 1) Germinate in spring season
- 2) Flower to mid to late summer
- 3) Reach full maturity in summer season
- 4) Seed set
- 5) Die in winter season
- 6) Ex : Lambsquarters, redroot pigweed, large crabgrass

b) Winter annual weeds -

- 1) Germinate in late summer or in beginning of the winter season.
- 2) Reach full maturity in spring season
- 3) Seed set
- 4) Die in summer season
- 5) Ex : Shepherds purse, pepper g

Some exhibit their growth in both summer and winter annual habits.

Ex - common chickweed, speedwell's.

2) Biennial weeds :-

It complete the vegetative growth in the first season, flower and set seeds in the succeeding season and then dies. These are found mainly in non-crope areas.

Ex - daucus carota, mullion, burdock

3) Perennial weeds :-

Perennials live more than two years and may live almost indefinitely. They adapted to with stand adverse condition. They propagate not only through seeds but also by underground stem, root, rhizomes etc. and then further classified into

- a) **Simple perennial weeds** : spread only by seeds. Vegetative reproduction can occur if the roots are cut into pieces and each piece will grow into a new individual weeds.

Ex - dandelion, plantain

- a) **Bulbous Perennial weeds** : They spread by underground bulbs and also by seeds.

Ex - wild garlic.

c) **Creeping perennial weeds** : Plants that possess modified shoot and fleshy stem and reproduce through corm seeds. Ex - Timothy.



M.G.V.C. ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL

CERTIFICATE

DEPARTMENT OF BOTANY

Examination Seat No:S1827766

Class- B. Sc 6th Sem

This is to certify that **Miss.Sharanabasaveshwari S.Shidaraddi** Has satisfactorily completed the project work on **Agrobacterium The natural genetic engineerr, T-DNA and transposon mediated Gene tagging**. Under my supervision in M.G.V.C. Arts, Commerce and Science College. Muddebihal during the year 2020-21


Staff Member Incharge

Head of the Department of Botany
M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL-586212
Dist: Bijapur.


Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



DEFINITION:-

Gene tagging involve the insertion of a recognisable DNA fragment with a gene. which a gene such that the function of the gene is disrupted

- Gene tagging strategies are used to isolate those genes that produce a detectable phenotype

- T-DNA and transposons can be used in gene tagging and gene analysis
 - T-DNA is the part of Ti plasmid , DNA found in the soil bacterium
 - Transposons are mobile genetic element that can move from one place to another place in a DNA molecule

- The tag may be based on
 - T-DNA of *Agrobacterium*
 - A transposable element
 - A retroviral genome

- Transposon tagging has been used to isolate several genes in maize , Tomato (cf-9, Dem) etc

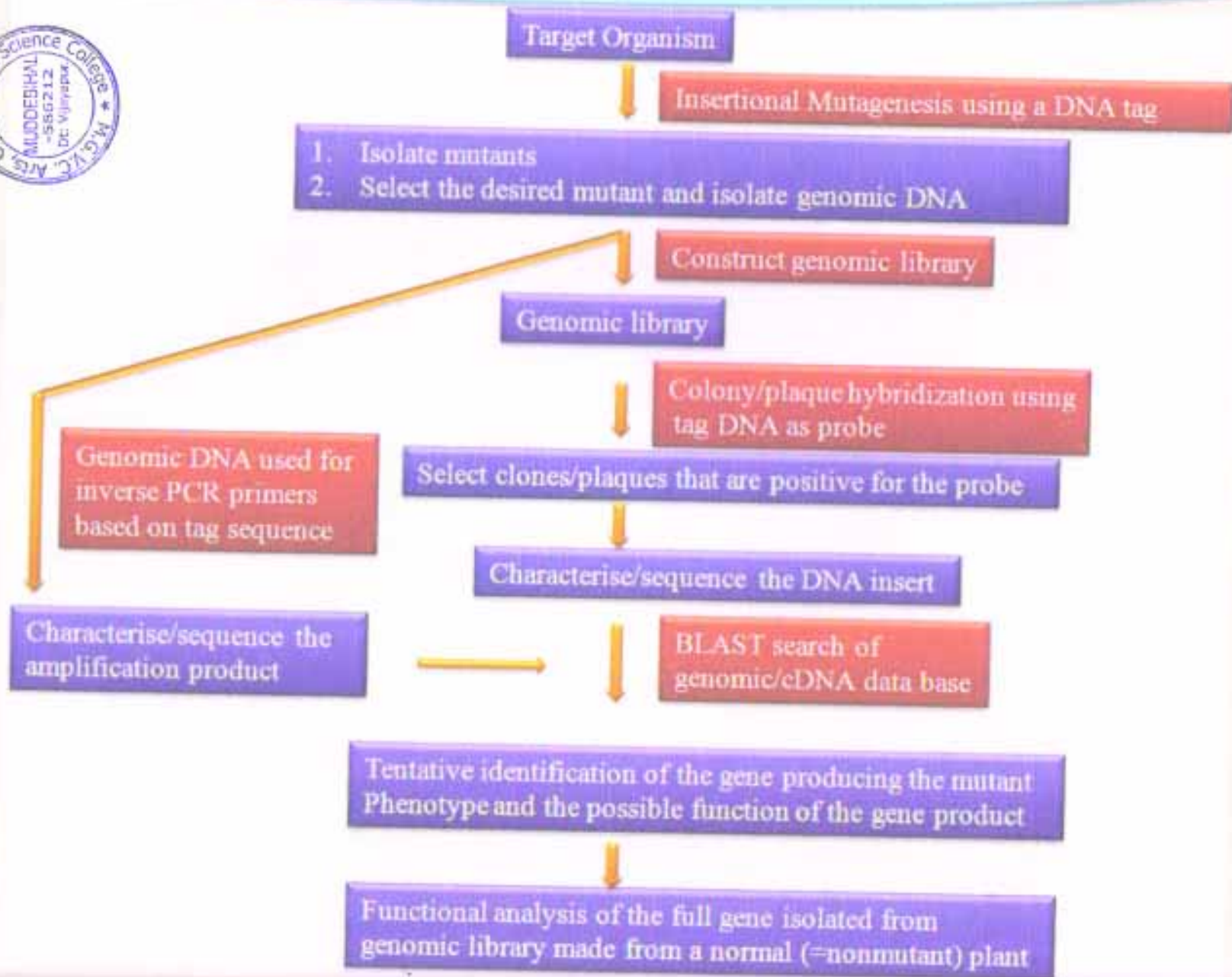
Uses:-

- ❖ In gene expression
- ❖ In gene silencing
- ❖ In knockout gene
- ❖ In site directed mutagenesis



AGBACTERIUM TUMEFACIENS

"T-DNA & Transposon Tagging"



M.G.V.C. ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL



CERTIFICATE

DEPARTMENT OF BOTANY


Examination Seat No: S1827828


Class- B. Sc Sixth Semester

This is to certify that Mr./Miss Zebamushkan. M. Saudagar.


Has satisfactorily completed the project work on
Immunological Techniques Under my supervision in M.G.V.C. Arts,
Commerce and Science College, Muddebihal during the year
2020-2021

Staff Member Incharge


Head of the Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist: Bijapur,


Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,

M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.

Home » Immunology » Immunological Techniques

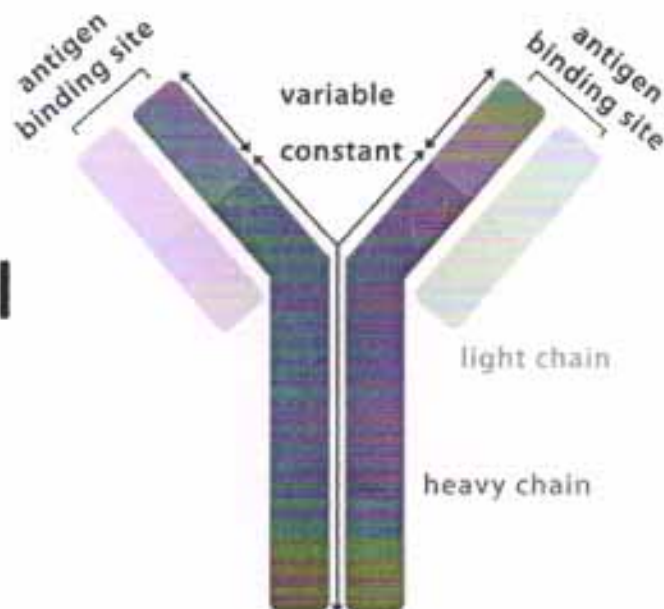
Immunological Techniques

February 25, 2021 by Somak Banerjee

[Table of Contents](#)


Immunological Techniques

Most of the immunological techniques are based upon the antigen-antibody reactions. Precipitation reactions are one of the important reactions that occur when antigen and antibody come to contact. When a soluble antigen reacts with its antibody in the presence of NaCl at optimal temperature and pH, the antigen-antibody complex forms an insoluble precipitate. Generally, liquid media and gels such as agar, agarose, polyacrylamide are used for this kind of reaction.



Immunological Techniques

Immunodiffusion tests

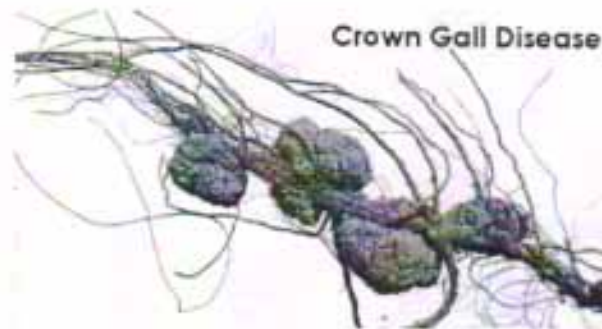
This is an immunological technique used to find out different antigens and antibodies in clinical samples. The tests are performed in 1% agar. There are some advantages of using immunodiffusion tests in a clinical set up such as

1. The band formed after the reaction is easily visible, stable and can be stained for preservation.
2. Different antigens can be used to observe the reaction. As each antigen-antibody reaction gives a specific precipitation line, therefore, it helps to identify specific antigen.
3. Identical, partial identical and non identical antigens can be observed.

Although some microbes are beneficial for human welfare, some of them are used for the production of bio-fertilizer, some are useful for industries, yet there are several microorganisms, which are the cause of plant disease. Such as some viruses, bacteria, mycoplasma, and fungi can cause several types of disease in ... Read more

Crown Gall Disease

January 19, 2021 by Muhammad Faisal Abbasi



Crown Gall Disease It is caused by *Agrobacterium tumefaciens*, which is a common plant disease (bacterial). The disease mostly affects dicotyledon species such as woody & herbaceous plants. Can be identified by the appearance of tumors of various size & shape at lower stem & main roots of the plant. ... Read more

Factors for the establishment of plant diseases

January 19, 2021 by Muhammad Faisal Abbasi



These are the factors for the establishment of plant diseases. Pathogen properties, Properties of the host. Presence/absence of nutritional component. Properties of environment. Image Source: AspenCore, Inc A) Pathogen properties 1. Level of virulence: Pathogen's ability to infect/damage the host or to infect a resistant gene. 2. Adaptability: The ability ... Read more

M.G.V.C ARTS, COMMERCE AND SCIENCE
COLLEGE



MUDDEBIHAL

DEPARTMENT OF BOTANY
PROJECT WORK ON SPICES



FROM : B.Sc FOURTH SEMESTER
STUDENTS - 2019-20

[Signature]
Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.

[Signature]

PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.

M.G.V.C.ARTS, COMMERCE AND SCIENCE COLLEGE

MUDDEBIHAL 586212

CERTIFICATE

DEPARTMENT OF BOTANY



Examination Seat. No: S1723418

Class- B.Sc Fourth Semester

This is certify that Mr/ Miss... Appaji . P. Malagi

..... Has satisfactorily completed the project work on

"Spices" Under my supervision in M.G.V.C. Arts, Comm and Science college
Muddebihal during the year 2019-2020.

Handwritten signature and date: 14/2/19

Staff member Incharge

Handwritten signature
Head/Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist, Bijapur,

VALUED	
Examination's Certfoc	
1. _____	
2. _____	<i>Handwritten signature and date: 14/2/19</i>



Ginger

Zingiber Officinale

Ginger is Flowering plant whose rhizome widely used as a spice and a folk medicine.

It is a herbaceous perennial which grows annual pseudo stems about a meter tall bearing narrow leaf beads. Ginger is in the family *Zingiberaceae* to which also belong turmeric.

Ginger originated in the tropical rainforests from the Indian Subcontinent to Southern Asia, where ginger plants show considerable genetic.

Nutritional Information

Raw ginger is composed of 79% water, 18% Carbohydrates, 2% Protein and 1% Fat in 100 grams . Raw ginger supplies 80 Calories and contains moderate amounts of vitamin B6 and the dietary minerals.

Regional Uses:

- Ginger also has a role in traditional Ayurvedic Medicine.
- Fresh Ginger is one of the main spices used for making pulse and lentil curries and other vegetables.
- Fresh ginger together with peeled garlic cloves is crushed or ground to form ginger garlic masala.



Cinnamon

Cinnamomum Verum

"*Cinnamomum Verum*" is a spice obtained from the inner bark of *Laurel* tree. Cinnamon is used mainly as an aromatic Condiment and flavouring additive in wide variety of Cuisines.

The genus *Cinnamomum* in the family *Lauraceae*. Cinnamom is native to China. All harvested and sold in the modern era as Cinnamon. Cinnamon are native to Vietnam, Indonesia and other Southeast Asian countries with warm climates.

Cinnamon sticks, powder and dries flowers of the *Cinnamomum Verum* Plant.

Ground Cinnamon is composed of around 11% water, 81% Carbohydrates, 4% Protein, 1% Fat in a 100 gram reference amount, ground Cinnamon is a rich source of Calcium, Iron (64%Dv) and Vitamin K (30% Dv).

M.G.V.C. ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL



CERTIFICATE

DEPARTMENT OF BOTANY

Examination Seat No E1827802

Class- B. Sc Sixth Semester


This is to certify that Mr. /Miss Shruti S. Rana

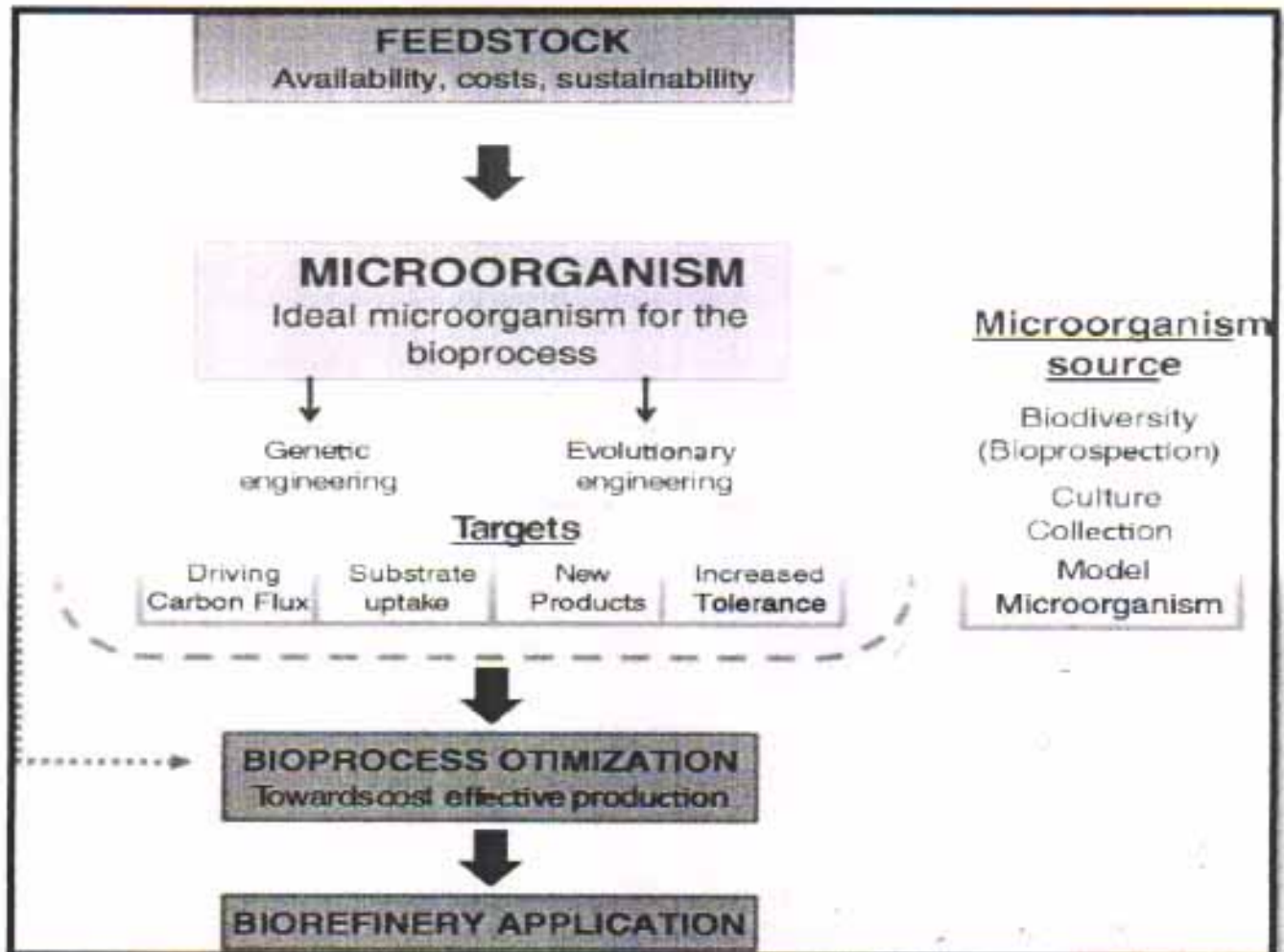
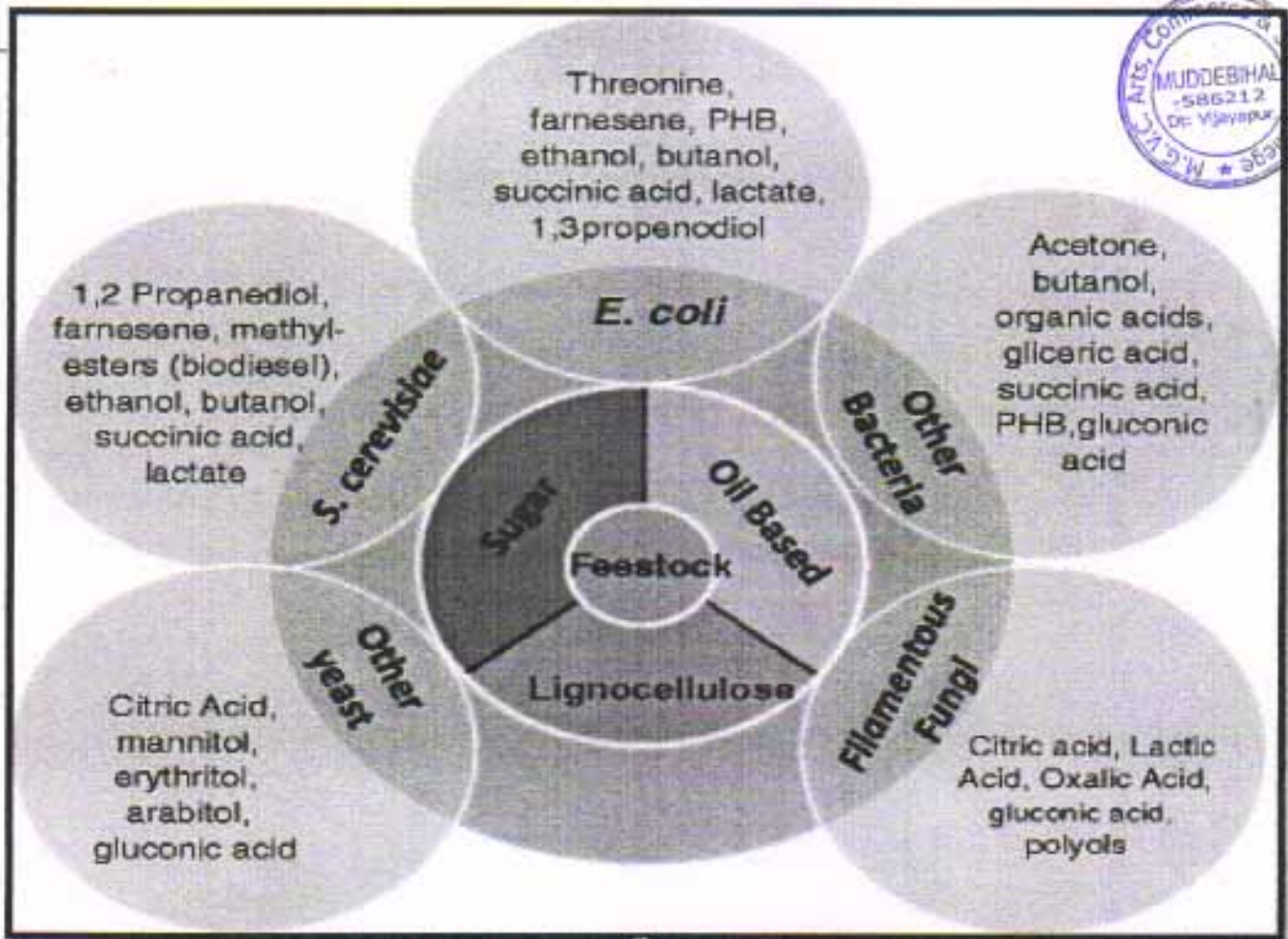
Has satisfactorily completed the project work on Genetic improvement
in industrial microbes Under my supervision in M.G.V.C. Arts,
Commerce and Science College, Muddebihal during the year
2020-2021


Staff Member Incharge


Head of the Department of Botany
M.G.V.C. College, MUDDEBIHAL-586212
Dist: Bijapur.


Coordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,
M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL - 586212.




Department of Zoology



List of the projects for the year - 2020-21

S/N ^o	Regist. No.	Class	Title of the project work
1	S1827603 to S1827828	Bsc-V Semester	Project work on (Ecology) Zooplankton in Krishna River.
2	S1827603 to S1827828	Bsc-VI Semester	Project work on Microscopy
3	S1827603 to S1827828	Bsc-VI Semester	Project work on Vermiculture


Head of the
Department of Zoology
M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL-586112 Dist. Bijapur


PRINCIPAL,
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



RANI CHANNAMMA UNIVERSITY, BELAGAVI

WEL-COME

TO THE COURSE STRUCTRE AND SYLLABUS OF UNDERGRADUATE
PROGRAMMES – B.Sc

V Semester

w.e.f.

Academic Year 2019-20 and onwards

Amrta
Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDEBIHAL-536212. Dist: Vijayapur.

PRINCIPAL,

M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-536212. Dist: Vijayapur.

PRINCIPAL,



B Sc V Semester (5.1)
Paper-I
ZOOLOGY (optional)

(Ecology, Evolution, Paleontology, Zoogeography, Wild life Conservation)

Total-hours,50
Marks-80

Ecology.

Earth as Living.-Planet. Sub divisions of ecology, Scope of ecology, Biosphere
1 hr

Abiotic factors _____
Light, Temperature (Effect on Animals and Plants)
2hr

Biotic Factor
Mutualism,Commensalism,Amensialism,Parasitism,Predation
,Competition,Parasitism.
2hrs

Habitats
4hrs

Freshwater habitat — Lotic and Lentic systems

Zonation of Sea,Marine Biota, Esturine ecology, & Mangrooves
Terrestrial habitat — A brief account of Biomes.

Ecological Adaptations — Freshwater, Marine and Terrestrial.

Biogeochemical Cycles - Principles and concepts of Water, Nitrogen, Carbon,
2hrs

Oxygen cycles

Community Ecology-Community structure, Ecological niches, Edge effect,
Stratification, Ecoton.
2hrs

Population Ecology: Density, natality, mortality.Age distribution

Population growth, types and curves.
2hrs

VIth (6th) Semester
Syllabus



Rani Channamma University, Belagavi.

B Sc VI Semester-6.1

Paper I

Total hours-56
Marks-80
Theory 4hrs/week

APPLIED ZOOLOGY (optional)

- Sericulture: Mulberry:** 07hrs
Silkworm and Life History of Bombyx mori.
Rearing of Silkworm: Grainage management, Emergence of moth & fertilization, egg laying, hatching and moulting of silkworm, spinning of cocoons. Cocoon processing, stifling and spinning silk filature. Silkworm diseases-Musccardine, Grasserie, Flacherie & Pebrine. Study of Non mulberry silkworms in brief
- Apiculture:** Species of Honey Bees, their Social organization, Life History- Methods of Bee Keeping, Products of Bees, & their Economic importance. 05hrs
- Insect Pest Management:** Natural control and Applied control of pests. 04hrs
Applied Control – Mechanical, Physical, Cultural, Legal, Chemical control & Pheromonal and Biological control & Integrated pest management. (Names of Pests mentioned in the practical should be referred.)
- Vermiculture:** Earthworm species used in vermiculture, vermiculture technique and importance of vermiculture. 04hrs
- Aquaculture:** 15hrs
Prawn Fisheries, Species of Prawns, Culture of freshwater and marine prawns.
Pearl Culture: Pearl producing molluscans, Pearl formation, Pearl producing sites in India. Quality and composition of Pearl. Pearl industry: Artificial insertion of nucleus. Brief technique of Fish culture. (Indian major Carps).
Preservation & processing methods of fishes and their byproducts.
- Poultry -** 06hrs
Breeds of fowl. Diseases of poultry, Poultry maintenance & by-products. Composition and Nutritive value of Egg.
- Animal Husbandary -** 12hrs
Maintenance, Breeds, Diseases, Products and byproducts of the following.
Sheep and Goats, Cow and Buffalos. Composition and Nutritive value of Milk.
- Lac culture -** 03hrs
Classification of Lac insect (Tacharola lacca), Life history of Lac insect, Host plants. Cultivation of Lac. Composition and properties & Economic importance.



Rani Channamma University, Belagavi.
B Sc VI semester 6.2
Paper II

ZOOLOGY (optional)
(Microbiology, Nanotechnology, Bioinformatics and Methods in Biology)

Total hours-56 Hrs
Marks-80 marks
Theory 4hrs/week

Microbiology

- | | |
|--|-----------------|
| 1. Microscopy: Compound Microscope and its functions.
Dark field microscope, Fluorescent Microscope,
Phase Contrast Microscope and Electron Microscope and
their uses. | 02 hrs |
| 2. Sterilization and other Techniques - Physical and Chemical methods.
Bacteria – Classification based on shapes, Structure (anatomy). Bacterial
Reproduction and growth. | 02 hrs
02hrs |
| 3. Virus - Morphology, chemical properties, classification and nomenclature.
DNA and RNA viruses. | 02 hrs |
| 4. Fungi – Structure, classification and reproduction. Yeasts. | 01 hr |
| 5. Fermentation: Types of Fermentor and basic functions. Methods of
preservations & criteria for the selection of microorganisms | 03 hrs |
| 6. Production of antibodies Penicillin, Streptomycin, Enzyme protease,
Riboflavin. | 02 hrs |
| 7. Normal microbial flora of the human body, | 1 hr |
| 8. Role of microbes in environment | 01 hr |

Nanotechnolog

- | | |
|---|--------|
| Introduction: History, Name the Tools and Techniques in Nanotech. | 02 hrs |
| Nanobiology: Applications of Nano in biology. | 01 hr |
| Nanomedicines: Nano drug Administration, Diagnostics and Therapeutic
Applications in Green Nanotechnology in brief – Lotus effect, Gold &
Silver nano particles, Curcumin phytochemicals & Cinnamon nano particles. | 02 hrs |



S.G.V.C Vidya Prasarak Trust's
MGVC ARTS, COMMERCE AND SCIENCE COLLEGE
MUDEBIHAL -586212



DEPARTMENT OF ZOOLOGY

A Project Work

CERTIFICATE

Reg: **51827614**

Class: **BSc VI Sem**

This is to certify that Mr./Miss **Akshoda R. Kumbhar** of
BSc Vth Semester, MGVC College Muddebihal has satisfactorily completed the Project
work on **Microscopy** under our supervision during the year 2020-2021

Staff Member in charge

Head of the

Department

Examiners, 1)

2)

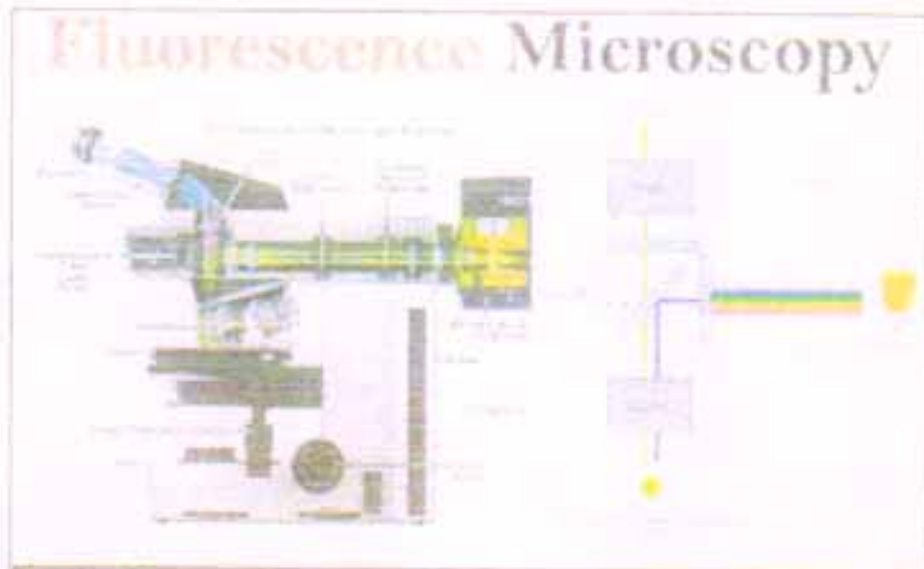
S.G.V.C Vidya Prasarak Trust's


Coordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



A
REPORT
ON
MICROSCOPY



FLUORESCENT MICROSCOPE

This microscope is based on the principle of fluorescence.

Fluorescence: The substance which emit visible light when illuminated by ultraviolet rays. The fluorescence is of two types. They are autofluorescence and secondary fluorescence. The fluorescence emitted by the substances themselves is called autofluorescence. Eg., chlorophyll, porphyrin, riboflavin, Vitamin A etc. The fluorescence emitted by nonfluorescent substances is called secondary fluorescence. The non fluorescence substances emit fluorescence when they are combined with fluorescent dyes called fluorochromes. The fluorochromes are fluorescein emitting yellow-green light and rhodamine emitting orange red light. The increased resolution of the electron microscope is possible because the path of electrons can be resolved to much smaller distance than light. In practice, a resolution of 10 Å is common. And greater resolution (to 2Å) is possible with special technique.

Instead of using visible to illuminate the object (as used in light microscope), the electron microscope uses a beam of accelerated electrons

and it focusses the electron beam with electromagnets (magnetic lenses). An image is formed when electrons strike a fluorescent screen or when



ELECTRON MICROSCOPE

Electron microscope was developed 1930s. It is a powerful tool for studying the ultrastructure of cells because it has much greater resolving power than the light microscope.

Basically there are two types of electron microscope such as Transmission electron microscope (TEMs) form images from electrons that have bounced off the surface of the specimen. A transmission electron microscope has a very high magnification (500,000 times). The resolution TEM was designed by Knoll and Ruska of Germany in 1932. It permits direct study of biological ultrastructures of cell organelles. The practical limit of resolution of electron microscope is about 3 to 5 Å.

MGVC ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL - 586212



DEPARTMENT OF ZOOLOGY

A Project Work
CERTIFICATE

Register No: **51827608**

Class: **BSc VI Sem**

This is to certify that Mr./Miss. **Aishwarya. Sajjan**
of BSc VIth Semester, MGVC College Muddebihal has satisfactorily
completed the Project work on **Vermiculture** under our supervision
during the year 2020-2021

Staff Member In charge

Head of the

Department:

Examiners: 1)

2)


Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



PRINCIPAL,

M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL - 586212.

Vermiculture Field



Eudrilus eugeniae





Harvesting



- ❖ Harvesting is the process of collecting the vermicompost. When the vermicompost is ready for use the top layer appears brownish in color with granular appearance.
- ❖ Take out the mulch layer & expose the vermibed to out environment.
- ❖ Stop watering the vermibed for 3-4 days.
- ❖ Collect the vermicompost in number of small hips & leave in the vermibed itself.
- ❖ Next day the vermicompost is harvested & seed.
- ❖ Vermicompost is shade dried.
- ❖ Packed in plastic coated bags.







vermiwash as fertilizer



Their excess water pured into the pit washes the earth worm body & skin & the water collected in pot is called vermiwash .At about 45 days we get vermiwash. Vermiwash is a pale yellow colored transparent coelomic fluid obtained from earthworms. It contains, micronutrients from the soil, along with the mucus, secretion & excretory materials of the worms. It's believed to contain antibiotic & antiviral property. It's generally used as fertilizer in aquatic productivity.

Uses of vermiwash

-  It induces flowering.
-  It induces plant growth.
-  It induces yield.
-  It gives protection against pest & diseases.



**MGVC ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL -586212**



DEPARTMENT OF ZOOLOGY

Register No: S1827633

Date : _____

CERTIFICATE

This is to certify that Mr/Miss. Ashwini Lamani of BSc. Vth Semester has satisfactorily completed A Project work on ZOOPLANKTON IN KRISHNA RIVER near Almatti village under our supervision in MGVC College Muddebihal during the year 2020-2021


Staff member in charge

Examiners :

1.

2.


Head of the Department
Department of Zoology
M.G.V.C. Arts Com & Science College
MUDDEBIHAL-586112 Dist. Vijapur


Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



A
Project Report
on
Zooplankton



Acknowledgement

I would like to convey my sincere gratitude to Prof.R.G.Vastrad Department of Zoology, MGVC College Muddebihal who has given me an opportunity and useful guidance to undertake this project work.

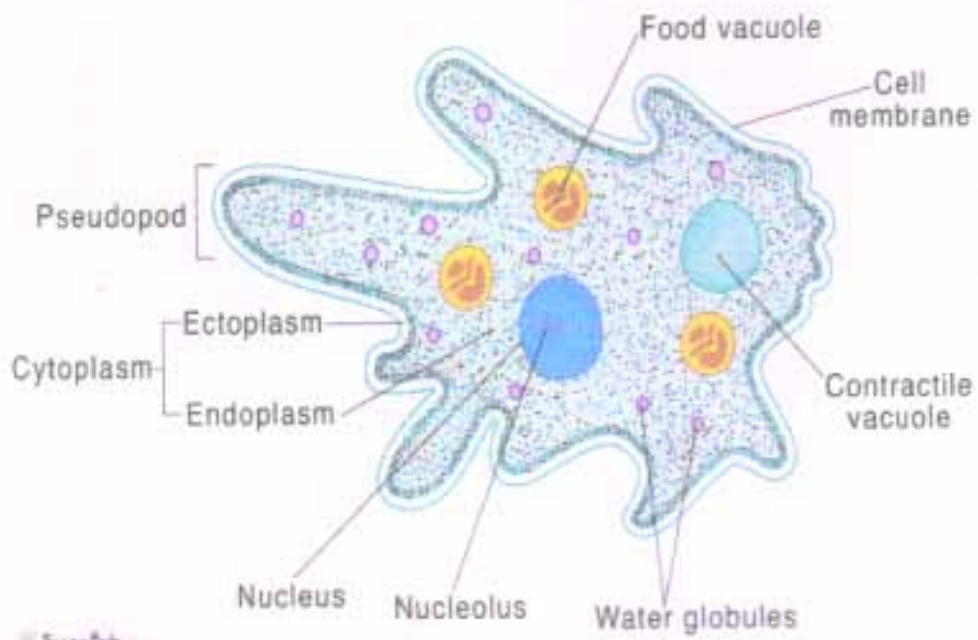
I am also thankful to Smt. K.G.Hiremath Professor Department of Zoology MGVC College Muddebihal for her valuable suggestions, co-operation in preparation of the project .

I offer my gratitude to Smt. R.M.Bukitagar lecturer Department of Zoology MGVC College Muddebihal for her valuable support, encouragement and guidance in completing this project report.

Place: Muddebihal

[Ashwini. Larnani]

Amoeba



M.G.V.C. Arts, Commerce and Science College Muddebihal

Dt: Vijayapur-586212

Department of Chemistry



List of Students Projects for the year 2020-21

Si No	Year	Class	Title of the Project
1	2020-21	BSc V Sem	<ol style="list-style-type: none">1. Sterilization of water by using Bleaching powder2. Study of presence of Insecticides and pesticides in fruits and vegetables.3. To study the amount of Casein present in different samples of Milk.4. Study of the effect of acids and bases on the tensile strength of fibers.

ADP
DEPARTMENT OF CHEMISTRY
M.G.V.C. COLLEGE MUDDEBIHAL

[Signature]
PRINCIPAL,
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.



M.G.V.C. Arts, Commerce and Science College Muddebihal

Dt: Vijayapur-586212

Department of Chemistry

Students Projects for the year 2020-21

Title of the Project:


“Sterilization of water by using Bleaching Powder”

Class BSc VI Sem



DEPARTMENT OF CHEMISTRY
M.G.V.C. COLLEGE MUDDEBIHAL


Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,
M.G.V.C. Arts, Com. & Science College
MUDDEBIHAL - 586212.



Sterilization of Water by using Bleaching Powder

Abstract

This project look at the technique called Sterilization of Water by using Bleaching Powder, which is used to purify water and make it fit for drinking.

Water is an important and essential ingredient in our quest for survival on this planet. It is very essential for carrying out various metabolic processes in our body and also to carry out Hemoglobin throughout the body. A daily average of 1 gallon per man is sufficient for drinking and cooking purposes. With the increasing world population, the demand for drinking water has also increased dramatically and therefore it is very essential to identify resources of water from which we can use water for drinking purposes. Since many available resources of water do not have it in drinkable form, in order to fulfill the demand of water, it needs to be purified and supplied in an orderly and systematic way.

Purification of Water

There are many methods for the purification of water, such as:

1. Boiling
2. Filtration
3. Bleaching powder treatment
4. SODIS (Solar Water Disinfection)

Need for a Stable Purification Technique

Therefore we need a purification technique which can be used anytime and anywhere, does not require the use of any third party content and which is also economically feasible on both normal scale and large scale. Hence we look at the method of purification of water using the technique of treatment by bleaching powder commonly known as "Chlorination".

Introduction

In 1854 it was discovered that a cholera epidemic spread through water. The outbreak seemed less severe in areas where sand filters were installed. British scientist John Snow found that the direct cause of the outbreak was water pump contamination by sewage water. He applied chlorine to purify the water, and this paved the way for water disinfection. This discovery led to governments starting to install municipal water filters (sand filters and chlorination). So in the 1890s America started building large sand filters to protect public health. These turned out to be a success. Instead of slow sand filtration, rapid sand filtration was now applied



Subsequently, Dr. Fuller found that rapid sand filtration worked much better preceded by coagulation and sedimentation techniques

But the victory obtained by the invention of chlorination did not last long. After some time the negative effects of this element were discovered. Chlorine vaporizes much faster than water, and it was linked to the aggravation and cause of respiratory disease. Water experts started looking for alternative water disinfectants. In 1902 calcium hypochlorite and ferric chloride were mixed in a drinking water supply in Belgium, resulting in both coagulation and disinfection. To this day, bleaching powder remains the most commonly used drinking water disinfectant. Almost all systems use some type of chlorine based process to disinfect water. In addition to controlling disease-causing organisms, chlorination offers a number of benefits including:

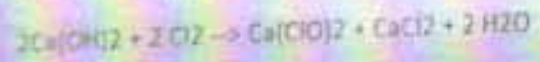
- Reduces many disagreeable tastes and odors.
- Eliminates slime bacteria, molds and algae that commonly grow in water supply reservoir
- Removes chemical compounds that have unpleasant tastes and hinder disinfection
- Helps remove iron and manganese from raw water.

For more than a century, the safety of drinking water supplies has been greatly improved by the addition of bleaching powder. However, bleaching powder also reacts with the organic matter, naturally present in water, such as decaying leaves thus forming a group of chemicals known as disinfection by-products. When used with modern water filtration methods, chlorine is effective against virtually all microorganisms. Bleaching powder is easy to apply and small amounts of the chemical remain in the water as it travels in the distribution system from the treatment plant to the consumer's tap, thus ensuring prevention of recontamination of water.

But what is bleaching powder and how is it prepared?

Bleaching powder or Calcium hypochlorite is a chemical compound with formula $Ca(ClO)_2$. This chemical is considered to be relatively stable and has greater available chlorine than sodium hypochlorite (liquid bleach). It is prepared by either calcium process or sodium process.

Calcium Process



Sodium Process



What are the actual processes involved in disinfecting and purifying water?

The combination of following processes is used for municipal drinking water treatment worldwide:

1. Pre-chlorination - for algae or any biological growth control
2. Aeration - removal of dissolved iron and manganese



3. Coagulation - for flocculation

4. Coagulant aids also known as polyelectrolyte's - to improve coagulation and for thicker floc formation

5. Sedimentation - for solids separation i.e. removal of suspended solids trapped in the floc

6. Filtration - for removal of carried over floc

7. Disinfection - for killing bacteria

Out of these processes, the role of Bleaching powder is only in the last step i.e. for Disinfection of water.



Aim:

To determine the dosage of bleaching powder required for sterilization or disinfection of different samples of water.

Requirements:

Burette, titration flask, 100ml graduated cylinder, 250ml measuring flask, weight box, glazed tile, glass wool.

Bleaching Powder, Glass wool, 0.1 N $\text{Na}_2\text{S}_2\text{O}_3$ solution, 10% KI solution, different samples of water, starch solution.

Pre-Requisite Knowledge:

1. Bleaching powder when dissolved in contains dissolved chlorine, liberated by the action of bleaching powder with water.



2. The amount of Chlorine present is determined by treating a known volume with excess of 10% KI solution, when equivalent amount of I_2 is liberated. The I_2 thus liberated is then estimated by titrating it against a standard solution of Sodium tiosulphate using starch solution as indicator.



Procedure:

1. Preparation of bleaching powder solution Weigh accurately 2.5g bleaching powder and transfer it to a 250ml conical flask. Add about 100ml of distilled water. Stopper the flask and shake it vigorously. The suspension thus obtained is filtered through glass wool and the filtrate is diluted with water to make the volume 250ml. The solution obtained is 1% bleaching powder solution.

2. Take 20ml of bleaching powder solution in a stoppered conical flask and add it to 20ml of 10% KI solution. Stopper the flask and shake it vigorously. Titrate this solution against 0.1N $\text{Na}_2\text{S}_2\text{O}_3$ solution taken in the burette. When the solution in the conical flask becomes light yellow in color, add about 2ml starch solution. The solution now becomes blue in color. Continue titrating till the blue color just disappears. Repeat the titration to get a set of three concordant readings.

Observation:

Volume of bleaching powder sol. taken 20ml•

Volume of KI solution added 20ml•

Volume of different samples of water 100ml

Titration Table for Distilled Water

Sr.No	Initial Reading	Final Reading	Final Vol. of 0.2N Na ₂ S ₂ O ₃ sol. used (ml)	Mean Vol. (ml)
1	2.0	10.1	8.1	8.2
2	10.1	18.4	8.3	
3	18.4	26.6	8.2	

Titration Table for Tank Water

Sr.No	Initial Reading	Final Reading	Final Vol. of 0.2N Na ₂ S ₂ O ₃ sol. used (ml)	Mean Vol. (ml)
1	15.1	25.2	10.1	10.1
2	25.2	35.2	10.0	
3	35.2	45.4	10.2	

Titration Table for Pond Water

Sr.No	Initial Reading	Final Reading	Final Vol. of 0.2N Na ₂ S ₂ O ₃ sol. used (ml)	Mean Vol. (ml)
1	7.2	12.1	4.9	4.8
2	12.1	16.9	4.8	
3	16.9	21.9	4.7	

Calculations:

TANK WATER (Sample I)

Amount of bleaching powder used to disinfect 100ml of tap water = (8.2 - 10.1) ml of 0.2 N of Na₂S₂O₃ solution

= 1.9ml of 0.2 N of Na₂S₂O₃ solution

Since, 250ml bleaching powder solution contains 2.5g bleaching powder

Thus, 1ml of bleaching powder solution contains bleaching powder = $2.5/250 = 0.01g$

Also, 20ml of bleaching powder solution = 8.2ml of 0.2N of Na₂S₂O₃

So 3ml of Na₂S₂O₃ solution = $20/8.2$ ml of bleaching powder solution

Volume of bleaching powder solution used to disinfect 1000ml of water = $1.9 \times 20/8.2$ ml



$1.9 \times 20 / 8.2$ ml. of bleaching powder solution = $1.9 \times 20 \times 0.01 / 8.2$ (gm) Bleaching Powder

Amount of bleaching powder used to disinfect 1 ltr. of water = $1.9 \times 20 \times 0.01 \times 1000 / 8.2 \times 100 = 0.4634$ gm

POND WATER (Sample II)

Amount of bleaching powder used to disinfect 100ml of water.
= (8.2 - 4.8) ml of 0.2 N Na2S2O3 solution
= 3.4 ml

Accordingly,

Volume of Ca(OCl)2 solution required to disinfect 1 ltr. of water
= $3.4 \times 20 \times 0.01 \times 1000 / 8.2 \times 100$
= 0.8293 gm.

Result

Amount of the given samples of bleaching powder required to disinfect one liter of water

Samples I = 0.4634 gm

Samples II = 0.8293 gm

Since amount of bleaching powder required for disinfecting POND WATER is more than that required for TANK WATER, thus it can be concluded that former contains more impurities.

Conclusion

While household bleaching solutions are widely available but it is not recommended to use it for household water treatment. If bleach is used for household water treatment system, concentration should be regularly checked and proper dosage strategy should be developed recommended by authorized organizations.

Bleaching Powder water treatment is useful in disinfecting water in places or conditions where boiling method cannot be practiced.

References:

1. google.com
2. wikipedia.org
3. vlib.us
4. toppersarena.com
5. jmooneyham.com
6. ianrpubs.unl.edu

Department of Chemistry

Students Project Reports

Class: B.Sc VI Sem

Batch: 1 [S1827602 to S1827680]

Sl No,	Student Reg. No	Student Name	Signature
1	S1827602	Abdulqayyum K. Madaf	Abdulqayyum
2	S1827604	Ajith M. Kulkarni	A.M. Kulkarni
3	S1827605	ABHINAV S. CHANNAPUR	Abhinav
4	S1827606	Ashwathappa P. Himmath	Ashwathappa
5	S1827611	Ajayakumar N. Hulageri	Ajayakumar
6	S1827616	Akshata Babalshwar	Akshata
7	S1827618	Akshata S. Patil	Akshata
8	S1827623	Ambadish M. Rodagi	Ambadish
9	S1827625	Anjana S. Shahapur	Anjana
10	S1827627	Anita N. Igoor	Anita
11	S1827628	Arati M. Nagod	Arati
12	S1827634	Basamagouda N. Patil	Basamagouda
13	S1827635	Basavara K. Tatti	Basavara
14	S1827636	Basavara Veesesh	Basavara
15	S1827640	Bhagyashree G. Bawakatti	Bhagyashree
16	S1827642	Bagyashree B. Hampanagara	Bagyashree
17	S1827645	Bhishma K. Nalkund	Bhishma
18	S1827646	Chaitra H. Rathod	Chaitra
19	S1827648	Dastagirab Mulla	Dastagirab
20	S1827649	Deepa H. Dodamani	Deepa
21	S1827653	Geeta Chavhan	Geeta
22	S1827655	Gusalingappa B. Math	Gusalingappa
23	S1827657	Husnabani W. Benaratti	Husnabani
24	S1827661	Ishwar Arathi	Ishwar
25	S1827668	Kavita K. Pawar	Kavita
26	S1827670	Kavita P. Tongabji	Kavita
27	S1827676	Lazmi S. Chelcholi	Lazmi
28	S1827677	Lohit B. Jainapur	Lohit
29	S1827678	Madankumar S. Totad	Madankumar
30	S1827680	Mahantagouda S. Tumbar	Mahantagouda



**M.G.V.C. Arts, Commerce and Science College
Muddebihal**

Dt: Vijayapur-586212

Department of Chemistry

Students Projects for the year 2020-21

Title of the Project:

**“Study of presence of Insecticides and Pesticides in fruits
and vegetables”**

Class BSc VI Sem



**DEPARTMENT OF CHEMISTRY
M.G.V.C. COLLEGE MUDDEBIHAL.**


Co-ordinator,

**Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.**



**PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.**



Study the Presence of Insecticides and Pesticides in Various Fruits and Vegetables

Abstract

To Study the Presence of Insecticides and Pesticides in Various Fruits and Vegetables.

In the past decade there has been a tremendous increase in the yields of various crops to meet the demand of overgrowing population, achieved by using pesticides and insecticides.

These are chemicals that are sprayed over crop to protect it from pests. For example: DDT, BHC, zinc phosphide, Mercuric chloride, dinitrophenol, etc. All pesticides are poisonous chemicals and are used in small quantities with care. Pesticides are proven to be effective against variety of insects, weeds and fungi and are respectively called insecticides, herbicides and fungicides. Most of the pesticides are non-biodegradable and remain penetrated as such into plants, fruits and vegetables. From plants they transfer to animals, birds and human beings who eat these polluted fruits and vegetables. Inside the body they get accumulated and cause serious health problems. These days preference is given to biodegradable insecticides like Malathion. The presence of insecticides residues in even raw samples of wheat, fish, meat, butter etc. have aroused the concern of agricultural administrators, scientists and health officials all over the world to put a check over the use of insecticides and to search for non-insecticidal means of pest control.

Materials required:

Mortar and pestle, Beakers, Funnel, Glass rod, Filter paper, China dish, Water bath, Tripod stand, Fusion tube, Knife, Test tube

Requirements:

Samples of various fruits and vegetables, Alcohol, Sodium Metal, Ferric Chloride, Ferrous Sulphate Crystals, Distilled Water and Dil. Sulphuric Acid

Theory

Nitrogen present in organic compounds is detected by "Lassaigne's Test". The elements present in the compound are converted from covalent form into the ionic form by fusing the compound with sodium metal. Following reaction take place:



(Sodium cyanide)



M.G.V.C. Arts, Commerce and Science College Muddebihal Dt: Vijayapur-586222

Department of Chemistry

Students Project Reports

Class: B.Sc VI Sem

Batch 6 : S1827769 to S1837216

Sl No,	Student Reg. No	Student Name	Signature
1	S1827769		
2	S1827771	Shivaraj A. Agri	S. Agri
3	S1827774	Shridhar B. Biradar	B. Biradar
4	S1827783	Soubhagyalaxmi S. meti	S. C. meti
5	S1827784	Soujanya B. Budihal	S. B. Budihal
6	S1827785	Spoorthi M. Sajjan	S. Sajjan
7	S1827786	SUDHARANI Kumbhar	S. Kumbhar
8	S1827789	Suman. V. Shastri	S. Shastri
9	S1827792	Sumanda S. Horrani	S. Horrani
10	S1827795	Sunil R. Dharmadhari	S. Dharmadhari
11	S1827797	Surekha S. Badnurwadgi	S. Badnurwadgi
12	S1827799	Sushilabai T. Chinnappa	S. Chinnappa
13	S1827802	Suod S. Pathol	S. Pathol
14	S1827806	Telashwini B. Tallketi	T. B. Tallketi
15	S1827813	Vidyaashri S. Patil	V. S. Patil
16	S1827816	Vijayalaxmi P. Shidhanath	V. P. Shidhanath
17	S1827818	Vilas S. Jachar	V. Jachar
18	S1827820	Vinayaka S. Daddi	V. Daddi
19	S1827822	Vishal S. Hiremath	V. Hiremath
20	S1827826	Yasra S. Muthuram	Y. Muthuram
21	S1827827	Yashoda B. Biradar	Y. Biradar
22	S1827828	Zebamuskan M. Saudagal	Z. M. Saudagal
23	S1837216	Basamma H. Tegginanah	B. H. Tegginanah
24	S1723432	Bhagyashree M. Bisogardar	B. M. Bisogardar
25	S1723443	Bhavya Samaga	B. Samaga
26	S1723531	Rajashree Sulikhowi	R. S. Sulikhowi
27	S172343	R	
28			
29			
30			



**M.G.V.C. Arts, Commerce and Science College
Muddebihal**

Dt: Vijayapur-586212

Department of Chemistry

Students Projects for the year 2020-21

Title of the Project:

“To study the amount of Casein present in different samples of Milk”

Class BSc VI Sem


DEPARTMENT OF CHEMISTRY
M.G.V.C. COLLEGE MUDDEBIHAL


Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
Muddebihal-586212. Dist: Vijayapur.


PRINCIPAL,
M.G.V.C. Arts, Com, & Science College
MUDDEBIHAL - 586212.

Amount of casein present in different samples of milk.

Aim

To determine the amount of casein present in different samples of milk

Milk is a multivitamin fluid and it is the primary source of nutrition for human. It consists of 80% of proteins. The protein in the milk is classified into casein and whey protein. Milk protein consists of 80% of casein and 20% whey protein. The function of casein is to provide energy to human body. The name of casein is related to the family of phosphoproteins. These proteins are commonly found in the mammalian milk. This study deals with the precipitation of casein from the various milk samples such as cow milk, goat milk, buffalo milk and also the samples that availed from the market. The technique of precipitation of casein is used to predict the protein content in the milk samples.

Introduction

Casein is the main protein constituent of milk. It constitutes about 80% of the total protein in cow's milk and about 3% of its weight. It group of protein precipitated when the milk is slightly acidified. It dissolves slightly in water, extensively in alkalis or strong acids. Casein is a complete protein meaning that it contains all of the essential amino acids, which the body can not manufacture on its own. When dried, it is a white, amorphous powder without taste and odour. It is a mixed phosphoprotein and occurs in milk as calcium salt (calcium caseinate) in the form of micelle. The micelle has a negative charge. When an acid is added to the milk, the negative charges are neutralized.



The quantity, quality and fat-content from the various milk samples differ with the type of particular mammals and their fodder. The composition of milk varies with according to the animals from which it comes, providing the correct growth rate and development for the young of that species. Casein is a slow digesting protein and it was suspended in the milk in a complex called micelle. m in diameter. Milk composition varies with the stage of lactation, age and breed. Milk is colloidal nature due to the presence of proteins. The proteins are heavy molecules; they form colloids when dispersed in water medium. The primary function of protein in living cells is to promote growth and maintenance. The nitrogen content of milk is distributed among casein 76%, when protein and non-protein nitrogen is 6%. The structure of protein consist of a polypeptide chain of amino acids joined together by peptide linkages. Around the world, there are more than six billion consumers of milk and milk products. Over 750 million people live in dairy farming households. It is used in paints for fast drying water-soluble medium (Figure 1). Casein based glues are formulated from the mixture of casein, water, hydrated lime and sodium hydroxide.



M.G.V.C. Arts, Commerce and Science College Muddebihal Dt: Vijayapur-586212

Department of Chemistry

Students Project Reports

Class: B.Sc VI Sem

Batch-1 (S1827 to S182765)

212 674

Sl No.	Student Reg. No	Student Name	Signature
1	S1824212	Ashwini B. Gowroji	A.B. Gowroji
2	S1827607	Ashwini M. Patil	Ashwini
3	S1827608	Aishwarya. Isaiar	Aishwarya
4	S1827620	Aishwarya Yalawar	Aishwarya
5	S1827614	Akshata R. Kumbhar	Akshata
6	S1827617	AKSHATA HUBBALLI	Akshata
7	S1827621	Allabhaksh. A. Newarji	A. A. Newarji
8	S1827624	Anil Jadhav	Anil Jadhav
9	S1827629	Arun Pawar	Arun Pawar
10	S1827630	Asha. J. Lamani	A. J. Lamani
11	S1827631	Ashok Vaggar	Ashok
12	S1827633	Ashwini. Lamani	Ashwini
13	S1827637	Basavaraj. Kumbhar	Basavaraj
14	S1827638	Bhagya Bhalikath	Bhagya
15	S1827641	Bhagfashree. B. Badae	Bhagfashree
16	S1827643	Andrat. Badiger	Andrat
17	S1827647	Chaitanya. B. B. B. B. B.	Chaitanya
18	S1827651	Dhiraj H. Hanumanth	Dhiraj
19	S1827652		
20	S1827654	Gowmukh. Kulkarni. A. K. K.	Gowmukh
21	S1827658	Ijazahamed. A. M. M. M. M.	Ijazahamed
22	S1827659	Imran. P. P. P. P. P.	Imran
23	S1827662	Jagadish. S. Jadhav	Jagadish
24	S1827663	Jyoti. B. Goudora	Jyoti
25	S1827666	K. K. K. K. K.	K. K. K. K. K.
26	S1827669	Kavita. H. H. H. H. H.	Kavita
27	S1827671	Kavita. S. Teggimath	Kavita
28	S1827672	Khajabuddi. M. P. P. P. P.	Khajabuddi
29	S1827673	Kiran. B. Natikari	Kiran
30	S1827674	Laxman. B. Hibhal	L. B. Hibhal
31	S1827665	Jyoti. Y. H. H. H. H.	Jyoti



**M.G.V.C. Arts, Commerce and Science College
Muddebihal**

Dt: Vijayapur-586212

Department of Chemistry

Students Projects for the year 2020-21


Title of the Project:

“Study of the effect of acids and bases on the tensile strength of fibers”

Class BSc VI Sem


DEPARTMENT OF CHEMISTRY
M.G.V.C. COLLEGE MUDDEBIHAL


Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.

Study of the effect of acids and bases on the tensile strength of fibers

Objectives

"Project Report Effects of Acids & Bases on the Tensile Strength of Fibres"

The aim and objective of this project is to

- (i) *Compare the tensile strength of given samples of nylon and cotton fibres.*
- (ii) *To investigate the Effect of Acids and Alkalies on the tensile strength of these fibres.*

Introduction

Depending upon the sources, the various types of fibres can be classified into the following three main categories :

- (i) Animal fibres e.g. Wool & Silk.
- (ii) Vegetable Fibres e.g. Cotton & Linen.
- (iii) Synthetic Fibres e.g. Nylon & Polyester.

Besides their chemical composition and properties, most important property of these fibres is their tensile strength. *Tensile strength mean the extent to which a fibre can be stretched without breaking and it is measured in terms of minimum weight required to break the fibre.* To determine the tensile strength of any fibre, it is tied to a hook at one end and weighted are slowly added to the other end until the fibre break. Since peptide bonds are more easily hydrolyzed by bases than acids therefore wool and silk are affected by basis not by acids. It is because of this reason that wool and silk threads breakup into fragments and ultimately dissolve in alkalines.

In other words alkalines decreases the tensile strength of animal fibres (wool & silk). Vegetable fibres (cotton & linen), on the other hand, consist of long polysaccharide chains in which the various glucose units are joined by ethers linkage. Since ethers are hydrolised by acids and not by bases therefore, vegetable fibres are affected by acids but not by bases. *In other words acids decreases the tensile strength of vegetable fibres. In contrast, synthetics fibres such as nylon & polyester practically remains unaffected by both acids and bases.*



Department of Chemistry

Students Project Reports

Class: B.Sc VI Sem

Batch- 5 (S1827679 to S1827767)

Sl No.	Student Reg. No	Student Name	Signature	Signature
1	S1827679	Maharajen, H. Baganay	<i>[Signature]</i>	<i>[Signature]</i>
2	S1827686	Mohammedkushal Anjali	<i>[Signature]</i>	<i>[Signature]</i>
3	S1827688	Muskam A. Okuntaji	<i>[Signature]</i>	<i>[Signature]</i>
4	S1827696	Nalambika Hanerath	<i>[Signature]</i>	<i>[Signature]</i>
5	S1827700	Ningaraogouda A Biradar	<i>[Signature]</i>	<i>[Signature]</i>
6	S1827701	Nisha L. Rathod	<i>[Signature]</i>	<i>[Signature]</i>
7	S1827706	Paalav Gundanavar	<i>[Signature]</i>	<i>[Signature]</i>
8	S1827713	Parvath Kumar S. Laxigond	<i>[Signature]</i>	<i>[Signature]</i>
9	S1827715	Pooja S. Shikarajadi	<i>[Signature]</i>	<i>[Signature]</i>
10	S1827716	Poornima Hirenath	P.M.Hirenath	P.M.Hirenath
11	S1827720	Poojapoo B. Biradar	<i>[Signature]</i>	<i>[Signature]</i>
12	S1827722	Prashant G. Athani	<i>[Signature]</i>	<i>[Signature]</i>
13	S1827723	Poojveena K. Lamani	P.K.Lamani	P.K.Lamani
14	S1827724	Prasanna Kumar P. Thodan	<i>[Signature]</i>	<i>[Signature]</i>
15	S1827726	Pushpa P. Dodamani	<i>[Signature]</i>	<i>[Signature]</i>
16	S1827729	Rajesh G. Hadaopad	<i>[Signature]</i>	<i>[Signature]</i>
17	S1827731	Ramanogouda B. Biradar	<i>[Signature]</i>	<i>[Signature]</i>
18	S1827734	Renuka S. Shivapoor	<i>[Signature]</i>	<i>[Signature]</i>
19	S1827737	Sabatasmita Shirvanaji	<i>[Signature]</i>	<i>[Signature]</i>
20	S1827738	SACHIN BIRADAR	<i>[Signature]</i>	<i>[Signature]</i>
21	S1827741	SACHIN J.	<i>[Signature]</i>	<i>[Signature]</i>
22	S1827744	Sahel Baganpad B. Patil	S.B.Patil	S.B.Patil
23	S1827747	Santoshkumari Anandkoti	<i>[Signature]</i>	<i>[Signature]</i>
24	S1827756	Santosh S. Anandkoti	<i>[Signature]</i>	<i>[Signature]</i>
25	S1827758	Saraswati B. Mathappa	<i>[Signature]</i>	<i>[Signature]</i>
26	S1827760	SAVESH R. Sordar	S.P.Sordar	S.P.Sordar
27	S1827762	Shreelal H. Baganwar	<i>[Signature]</i>	<i>[Signature]</i>
28	S1827765	Shankaragoud. B. Biradar	S.B.Biradar	S.B.Biradar
29	S1827766	Shravanakrishna S. Biradar	<i>[Signature]</i>	<i>[Signature]</i>
30	S1827767	Shobana Kumari Anand	<i>[Signature]</i>	<i>[Signature]</i>
31	S1827769	Shivakumar R. Morani	<i>[Signature]</i>	<i>[Signature]</i>



B.A SYLLABUS IN GEOGRAPHY - 2020-21
SEMESTER - VI . 2020-21

PRACTICAL PAPER- VIII : FIELD WORK AND DISSERTATION

Unit No. I	Preliminary Discussion and selection of the topic. Preparation of Questionnaire	08hours
Unit No. II	Data collection and methods used	20 hours
Unit No. III	Final report writing	12 hours
Unit No. IV	Viva-Voce	

- Note:** Note: 1. Field study tour report is a part of the curriculum for B.A IV Semester students of geography. Study tour and dissertation work is compulsory.
2. The concern teacher should select a Topic within District/State.


Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDEBIHAL-586212. Dist: Vijayapur.


PRINCIPAL,

M. G. V. C. Arts, Com. & Science College
MUDEBIHAL - 586212.



II	Basic issues in Regional planning-Gross root level and systems of regional planning, Regional interactions and socio-economic and technological development.	12
III	Development strategy of planning: Need of planning for natural, social and economically background regions. Tribal area development planning.	10
IV	Regional Planning Processes – sectoral, temporal, spatial and multi level planning. Centralized and Decentralized planning; Block and District level planning and Integrated Area Development Planning (IADP).	12
V	Role of urban centers in regional development. City regions and their problems. Regional Disparities. Planning Regions in Karnataka; Policies and Programmes for backward area development.	16
Total		60 hours

REFERENCES:

1. Ashish Sarakar(2011) : Regional planning in India.
2. Bhat L. S. : Aspects of Regional Planning in India
3. Chandana. R. C. (2003) : Regional Planning A Comprehensive Text
4. Chaudhuri. J. R.(2009) : An Introduction to Development and Regional Planning with special reference to India.
5. Dickinson R.E.(1964) : City and Region ; A Geographical Interpretation. Routledge and Keagan Paul.
6. Galasson John (1974) : An Introduction to Regional Planning Hutchinson. Educational London
7. Misra R.P.Sundaram k.v, &V.L.S.Prakasa Rao(1974) : Regional Development Planning In India.
8. Misra R.P. (1992) : Regional planning,Concept Publishing company, New Delhi.
9. M. Chand & V. Puri(1983) : Regional Planning in India, Allied publishers Ltd., New Delhi.
10. Sundaram, K. V. (1985) : Geography and Planning", Concept Publishing Company, New Delhi

----0000----

**B. A. /B. Sc. SYLLABUS IN GEOGRAPHY
SEMESTER – VI
PRACTICAL PAPER - VIII
FIELD WORK AND DISSERTATION**

Units No.	Topic	Teaching Hours
I	Preliminary Discussion and selection of the topic. Preparation of Questionnaire.	08
II	Data collection, Tabulation, and Methodology.	20
III	Final report writing.	12
IV	Viva-Voce	
V		
Total		40 hours

Co-ordinator,
Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDDEBIHAL-586212. Dist: Vijayapur.


65
PRINCIPAL,

**M. G. V. C. Arts, Com. & Science College
MUDDEBIHAL - 586212.**



Department of Geography



Co-ordinator,

Internal Quality Assurance Cell
M.G.V.C. Arts, Commerce & Science College
MUDEBIHAL-586212. Dist: Vijayapur,

Principal

PRINCIPAL,
M. G. V. C. Arts, Com. & Science College
MUDEBIHAL - 586212.



M.G.V.C. ARTS, COMMERCE AND SCIENCE COLLEGE
MUDDEBIHAL

DEPARTMENT OF GEOGRAPHY



PROJECT WORK (2020-21)





DEPARTMENT OF GEOGRAPHY



S.G.V.C. Vidya Prasarak Trust's

M.G.V.C. Arts, Commerce and Science
College, Muddebihal - 586 212

DIST : VIJAYAPUR

College Code : 5229

STATE : KARNATAKA

CERTIFICATE

Date : _____

Reg. No. : _____

This is to certify that Miss/Mr. _____

_____ has satisfactorily completed the course of practical work in the
Computer Laboratory during 201 - 201 in B.A _____
class.

Examiners

HOD

1)

(Prof. S S Murthy)

2)



ಬಿ.ಒ.ಬಿ.ಐ.ಐ.ಸಿ.ಕಲಾ,ವಾಣಿಜ್ಯ ಹಾಗೂ ವಿಜ್ಞಾನ ಮಹಾವಿದ್ಯಾಲಯ
ತಾ:ಮುದ್ದೇಬಿಹಾಳ ಜಿ:ವಿಜಾಪುರ

ಭೂಗೋಳಶಾಸ್ತ್ರ ವಿಭಾಗ :- GEOGRAPHY DEPARTMENT

ಯೋಜನಾಕಾರ್ಯ :- PROJECT WORK 2010-21

ಬಿ.ಎ. VI ನೇ ಸೆಮೆಸ್ಟರ ವಿದ್ಯಾರ್ಥಿ/ ವಿದ್ಯಾರ್ಥಿನಿಯರಿಂದ

ಅರಣ್ಯಗಳ ವಿಶ್ಲೇಷಣೆ ANALYSIS OF FOREST

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಅರಣ್ಯಗಳು ಒಂದು ಅಧ್ಯಯನ

A CASE STUDY OF KARNATAK STATE FOREST

ಮಾರ್ಗದರ್ಶಕರು

ಪ್ರೊ|| ಎಸ್.ಎಸ್. ಮೂರ್ತಿ

ಮುಖ್ಯಸ್ಥರು ಭೂಗೋಳಶಾಸ್ತ್ರ ವಿಭಾಗ



ಪರವಿಡಿ

CONTENTS

- 1) ಕರ್ನಾಟಕದ ಪರಿಚಯ : [Introductions Of Karnataka]
- 2) ಭೌಗೋಳಿಕ ಸ್ಥಾನ, ಗಾತ್ರ ಮತ್ತು ವಿಸ್ತೀರ್ಣ : [Geographical Location, Siz And Extension]
- 3) ಅರಣ್ಯದ ಅರ್ಥ : [Meaning Of Forest]
- 4) ಅರಣ್ಯದ ಪ್ರಕಾರಗಳು : [Types Of Forest]
- 5) ಅರಣ್ಯದ ಮಹತ್ವ : [Important Of Forest]
- 6) ಅರಣ್ಯಗಳ ಛಾಯಾ ಚಿತ್ರಗಳು (ವಿಧಗಳಿಗನುಗುಣವಾಗಿ) : [Photos Of Forest] (Type Wise)
- 7) ಅರಣ್ಯ ಉತ್ಪನ್ನಗಳು : [Forest Products]
- 8) ಅರಣ್ಯದ ಹಂಚಿಕೆ : [Distribution Of Forest]
- 9) ಅರಣ್ಯದ ಸಂರಕ್ಷಣೆ : [Conser Vation Of Forest]
- 10) ಅರಣ್ಯ ಕ್ಷೇತ್ರ ಜಿಲ್ಲಾವಾರು [Forest Area - DistrictWise]
- 11) ಕರ್ನಾಟಕ ನಕ್ಷೆ : Map Of Karnataka
- 12) ವಿದ್ಯಾರ್ಥಿಗಳ ಸಮೂಹ ಛಾಯಾ ಚಿತ್ರ Student's Griup Photo



ಕರ್ನಾಟಕದ ಪರಿಚಯ

INTRODUCTION OF KARNATAK

ಕರ್ನಾಟಕದ ಏಕೀಕರಣವು 1913 ರಲ್ಲಿಯೇ ರಾಜ್ಯದಾದ್ಯಂತ ಅಂತರಿಕವಾಗಿ ಆರಂಭವಾಯಿತು. ಇದರ ಮುಂದಾಳತ್ವವನ್ನು ಕರ್ನಾಟಕ ವಿದ್ಯಾವರ್ಧಕ ಸಂಘವು ವಹಿಸಿತು. ಈ ಸಂಘವು 1890 ರಲ್ಲಿಯೇ ಧಾರವಾಡದಲ್ಲಿ ಕನ್ನಡ ಭಾಷೆ, ತಹಿತ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ವಿಕಾಸಕ್ಕಾಗಿ ಸ್ಥಾಪಿತವಾಗಿದ್ದಿತು. ಇದರ ಜೊತೆಗೆ 1815 ರಲ್ಲಿ ಬೆಂಗಳೂರಿನಲ್ಲಿ ಸ್ಥಾಪಿತವಾಗಿದ್ದ ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತವು ಕೈ ಜೋಡಿಸಿ ಹೊರಾಟವನ್ನು ಆರಂಭಿಸಿತು. ನಂತರ ರಾಜ್ಯದಾದ್ಯಂತ ಹಲವಾರು ಸಾಂಸ್ಕೃತಿಕ ಸಂಸ್ಥೆಗಳು, ವೇದಿಕೆಗಳು ಎದರಲ್ಲಿ ತೊಡಗಿಸಿಕೊಂಡವು ಕರ್ನಾಟಕ ಏಕೀಕರಣ ಸಮ್ಮೇಳನವು ಬೆಳಗಾವಿಯಲ್ಲಿ 1924 ರಲ್ಲಿ ಜರುಗಿತು ನಂತರ ಮುಂಬೈ & ಮದ್ರಾಸ್ ಪ್ರಾಂತಗಳೂ ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಏಕೀಕರಣವನ್ನು ಅನುಮೋದಿಸಿ ತರಾವನ್ನು ಪಾಸು ಮಾಡಿ ಸಹಕಾರವನ್ನು ನೀಡಿದವು.

ಇಂಡಿಯನ್ ನ್ಯಾಷನಲ್ ಕಾಂಗ್ರೆಸ್ಸು ಅಂದ್ರಪ್ರದೇಶ ಹಾಗೂ ಕರ್ನಾಟಕ ಭಾಷಾವಾರು ರಾಜ್ಯಗಳ ಹೊರಾಟವನ್ನು ಬೆಂಬಲಿಸಿತು. ಈ ಹೊರಾಟಗಳ ಪರಿಣಾಮವಾಗಿ 1953 ರಲ್ಲಿ ಭಾರತದ ಮೊದಲ ಭಾಷಾವಾರು ರಾಜ್ಯವಾಗಿ ಅಂದ್ರಪ್ರದೇಶವು ಅಸ್ತಿತ್ವಕ್ಕೆ ಬಂದಿತು.

ನಂತರ ಫಜಲ್ ಅಲಿಯವರ ನೇತೃತ್ವದಲ್ಲಿ ರಾಜ್ಯ ಪುನರ್ ವಿಂಗಡನಾ ಸಮಿತಿ ನೇಮಕಗೊಂಡಿತು. ಇದರ ವರದಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಭಾಷಾವಾರು ರಾಜ್ಯವನ್ನು ಶಫಾರಸ್ತು ಮಾಡಿತು. ಇದರ ಪರಿಣಾಮವಾಗಿ 1 ನವೆಂಬರ್ 1956 ರಲ್ಲಿ ಕರ್ನಾಟಕ ಭಾಷಾವಾರು ರಾಜ್ಯವು ಅಸ್ತಿತ್ವಕ್ಕೆ ಬಂದು ಇದನ್ನು ಮೈಸೂರು ರಾಜ್ಯವೆಂದು ಕರೆಯಲಾಯಿತು. ನಂತರ ಇದನ್ನು 1973 ರಲ್ಲಿ ಅಂದಿನ ಮುಖ್ಯಮಂತ್ರಿಯಾಗಿದ್ದ ದಿವಂಗತ ಶ್ರೀ ಡಿ.ದೇವರಾಜ ಅರಸರವರಿಂದ ಕರ್ನಾಟಕ ರಾಜ್ಯವೆಂದು ಮರುನಾಮಕರಣ ಮಾಡಲಾಯಿತು. ಕನ್ನಡವನ್ನು ಪ್ರಧಾನ ಭಾಷೆಯನ್ನಾಗಿ ಮಾತನಾಡುವ ಜನರ ಭೂ ಪ್ರದೇಶವನ್ನು ಕರ್ನಾಟಕ ಎಂದು ಕರೆಯುವರು.