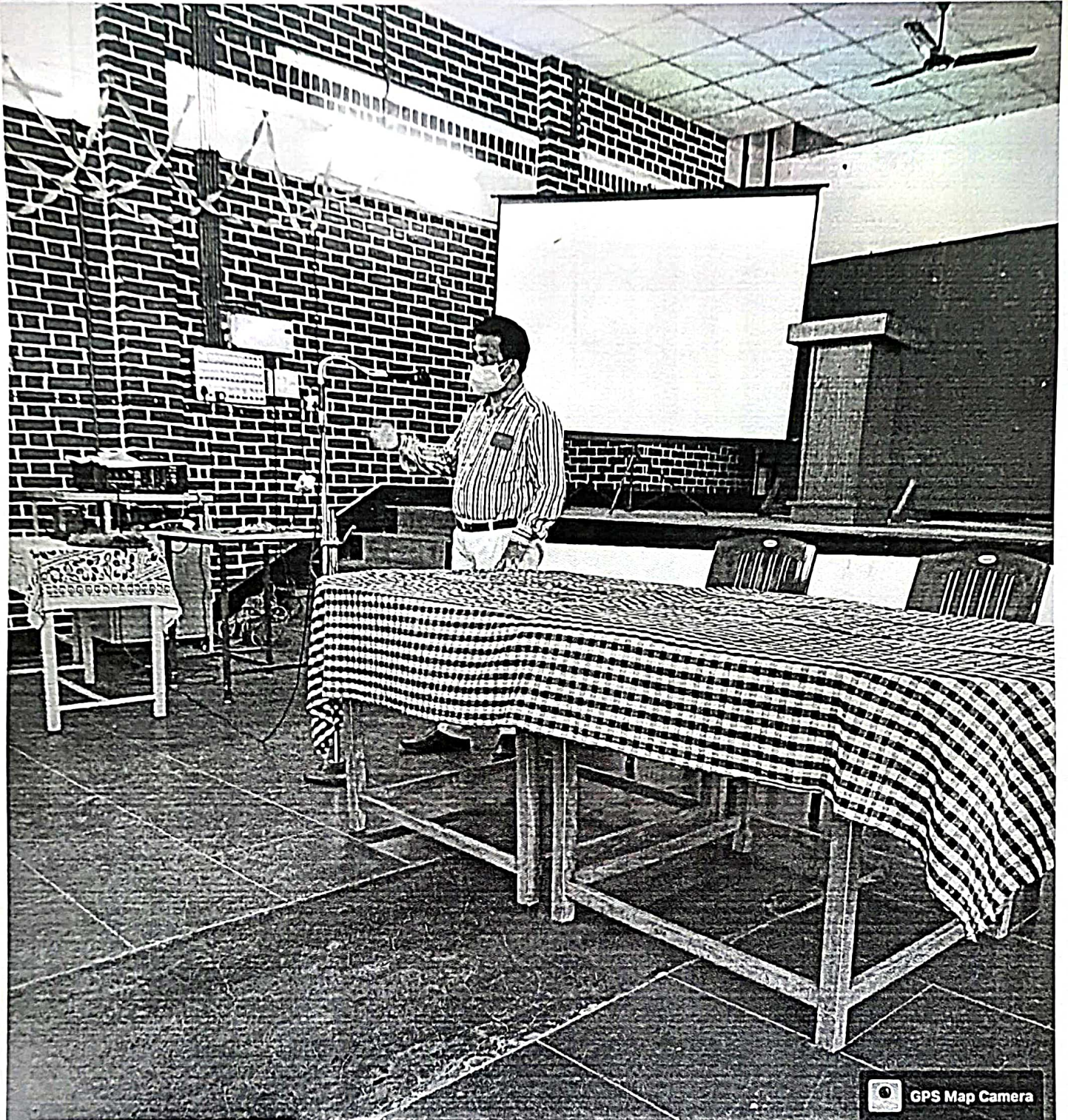


Carmel College, Mala**Department of Agriculture (B. Voc)****2021-2022****Report on Institutional Visit to IRTC, Mundur, Palakkad**

The first year and the second year students of B. Voc Agriculture were taken for the institutional visit to Integrated Rural Technology Centre, Mundur, Palakkad on 11 March 2022. We started from Carmel College, Mala from 6.30 am. Some of the students were collected on the way. The faculties of Department of Agriculture Dr. Manjusha Rani and Ms. Jipcymol P accompanied the trip. We reached the institution by 10.00 am and were received at the institution by one of the faculties of the institution Mr. Lalithan followed by an interaction section about the institute by Mr. Lalithan and Dr. Musthafa. Later the entire students were divided in to two equal groups and were taken to visit various departments of the institute. The students visited the soil science lab where they were able to familiarize themselves with various equipment for soil testing and soil fertility testing such as pH meter, electrical conductivity meter, flame photometer, spectrophotometer etc. The staff explained about the working of the same. Further the students were taken to microbiology lab where Dr. Veena explained about the waste management using microorganisms. Later the students visited the vermicompost unit, mushroom cultivation unit, terrecoata making unit, aquaponics , biofloc units of fish cultivation and the production unit of IRTC The visit was concluded by 2.00 pm.

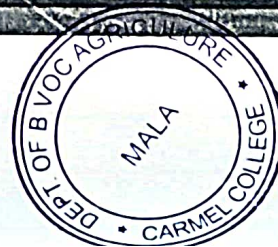


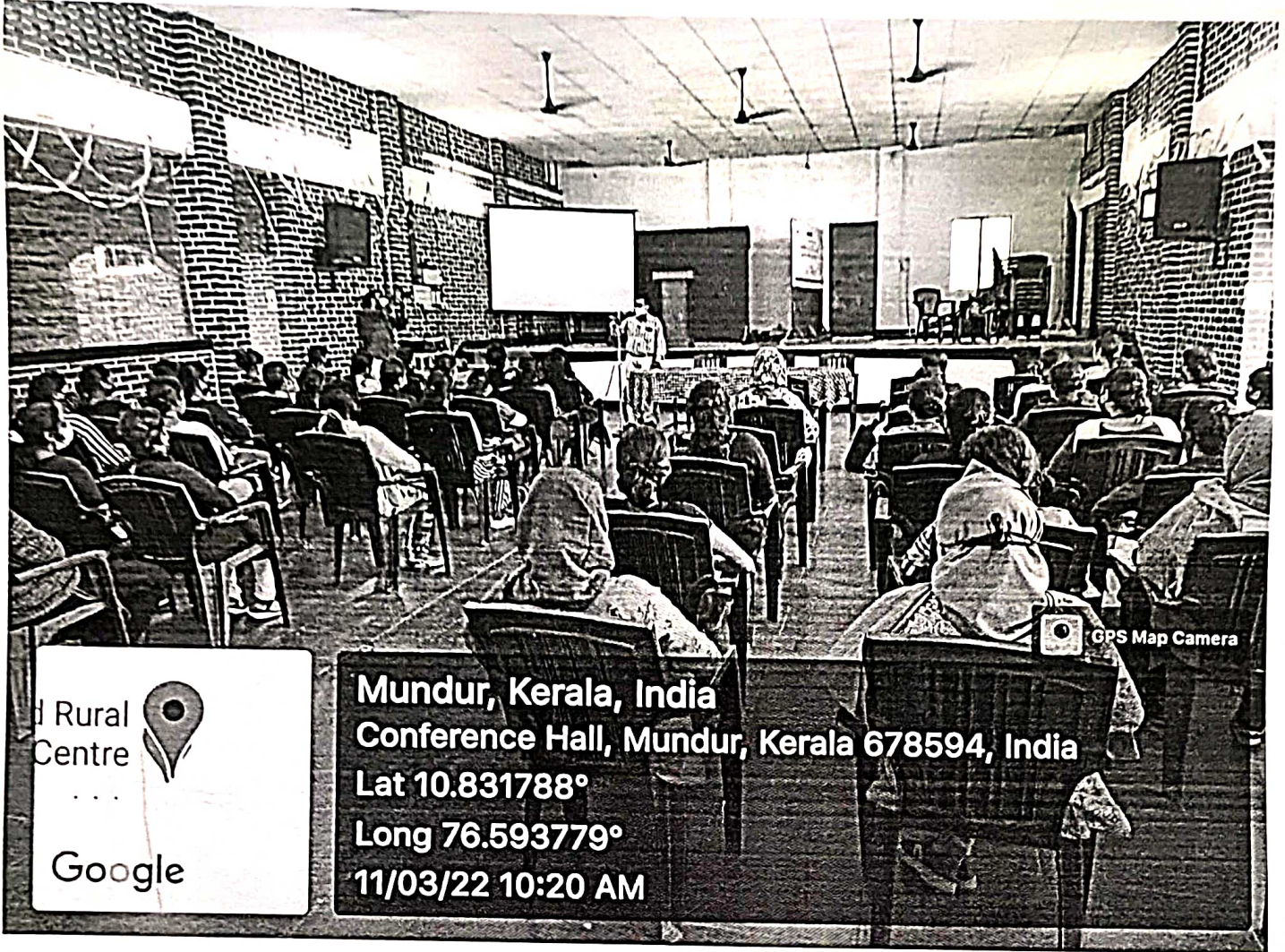


GPS Map Camera



Mundur, Kerala, India
Reception, Mundur, Kerala 678594, India
Lat 10.831822°
Long 76.593888°
11/03/22 10:19 AM



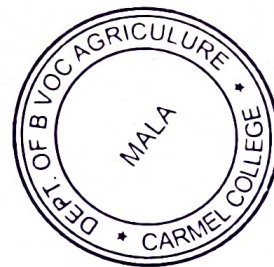


Rural
Centre



Google

Mundur, Kerala, India
Conference Hall, Mundur, Kerala 678594, India
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Long 76.593779°
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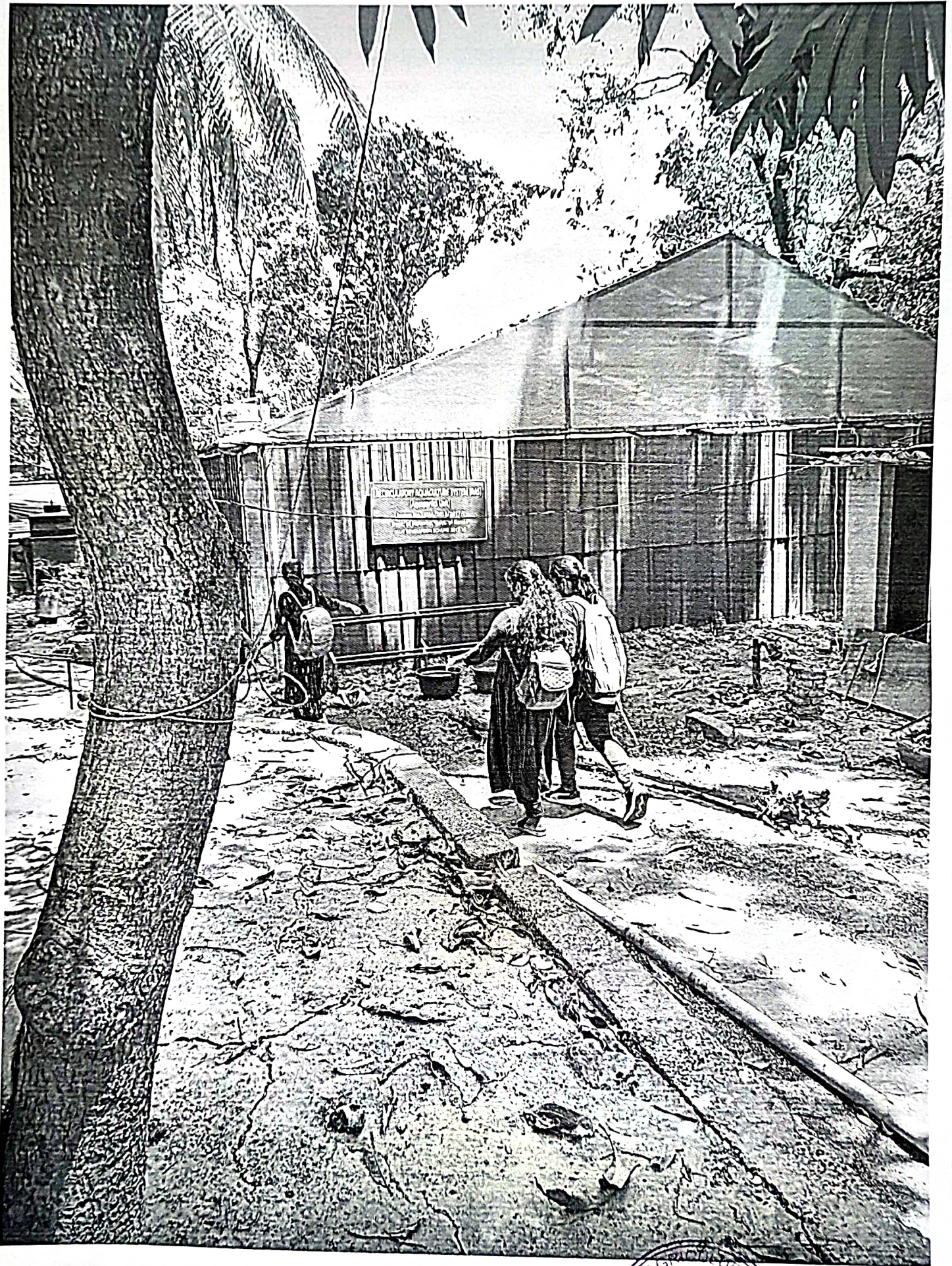
FLAME PHOTOMETER

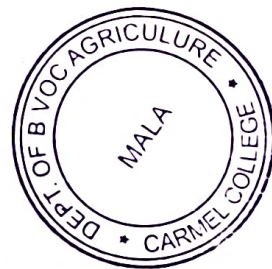
GPS Map Camera

IRTC - I
Techno
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Google

Mundur, Kerala, India
 Dormitory, Mundur, Kerala 678594, India
 Lat 10.830999°
 Long 76.593797°
 11/03/22 10:47 AM







Department of Agriculture**Carmel College, Mala****2021-2022****Visit to MANGO FEST at College of Agriculture, Kerala Agricultural University,
Paddannakkad, Kasargod**

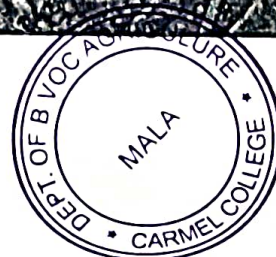
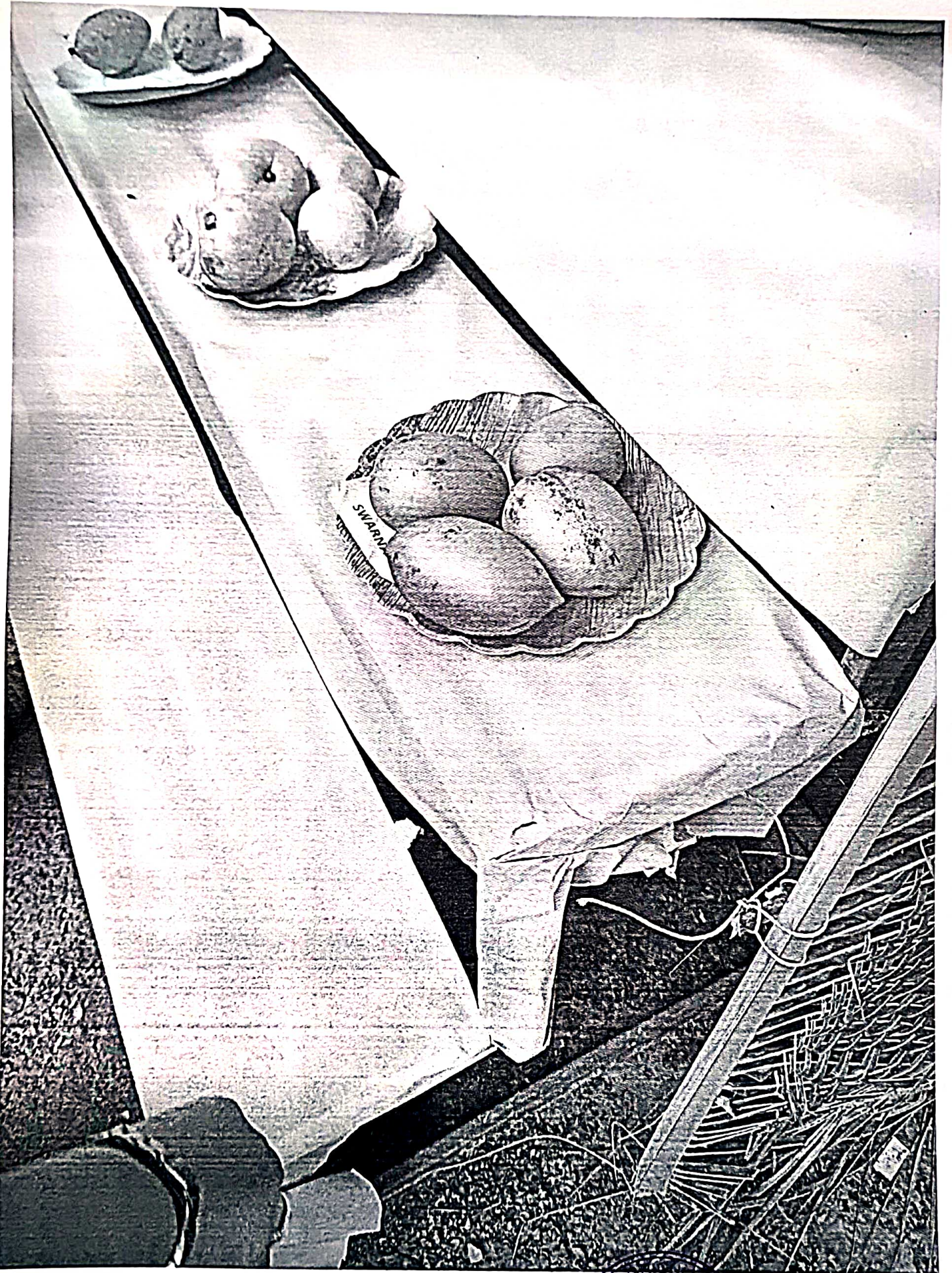
Three of the students of second year Ms. Surya K M, Ms. Sruthi and Ms. Sudhina were taken to visit the MANGO FEST fair at College of Agriculture, Kerala Agricultural University, Paddannakkad, Kasargod on 14th May 2022. The head of the Department Dr. Manjusha Rani accompanied the students. Malabar MANGO FEST is celebrated by the students of the agriculture college every year to point out the importance of mangoes and its different varieties. Different varieties of mangoes collected from different states of India were exhibited in the fair. The point of attraction was the displayed tools and equipments that were used earlier by the farmers. The student of the college also displayed working models of different equipments used for farming. Dry flower arrangements, soil types, processed products in agriculture were also displayed in the exhibition. The students enjoyed the exhibition and could gain knowledge about different kinds of mangoes available in India.

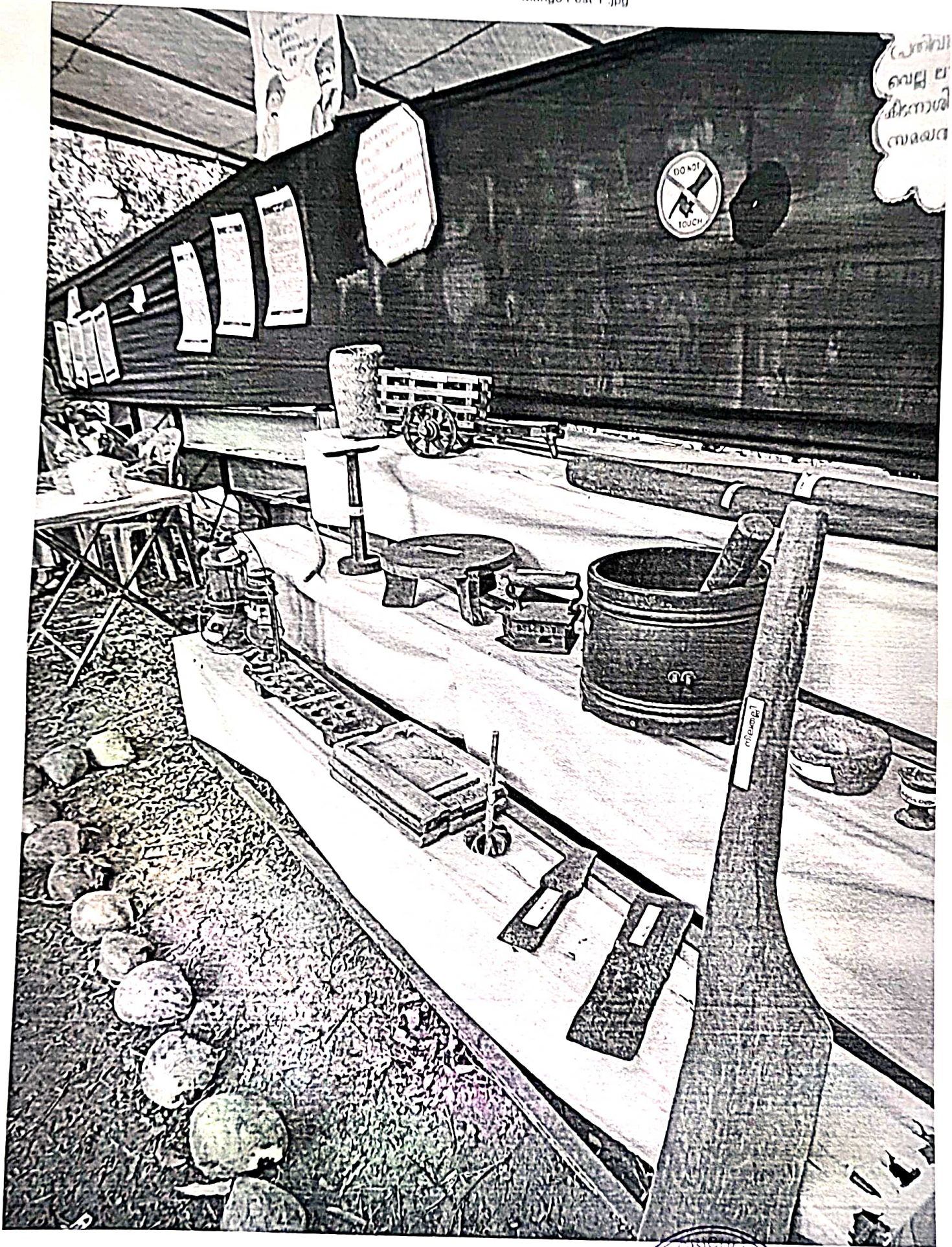


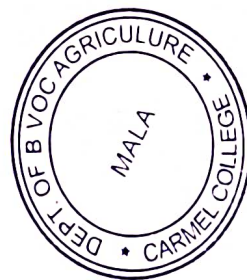
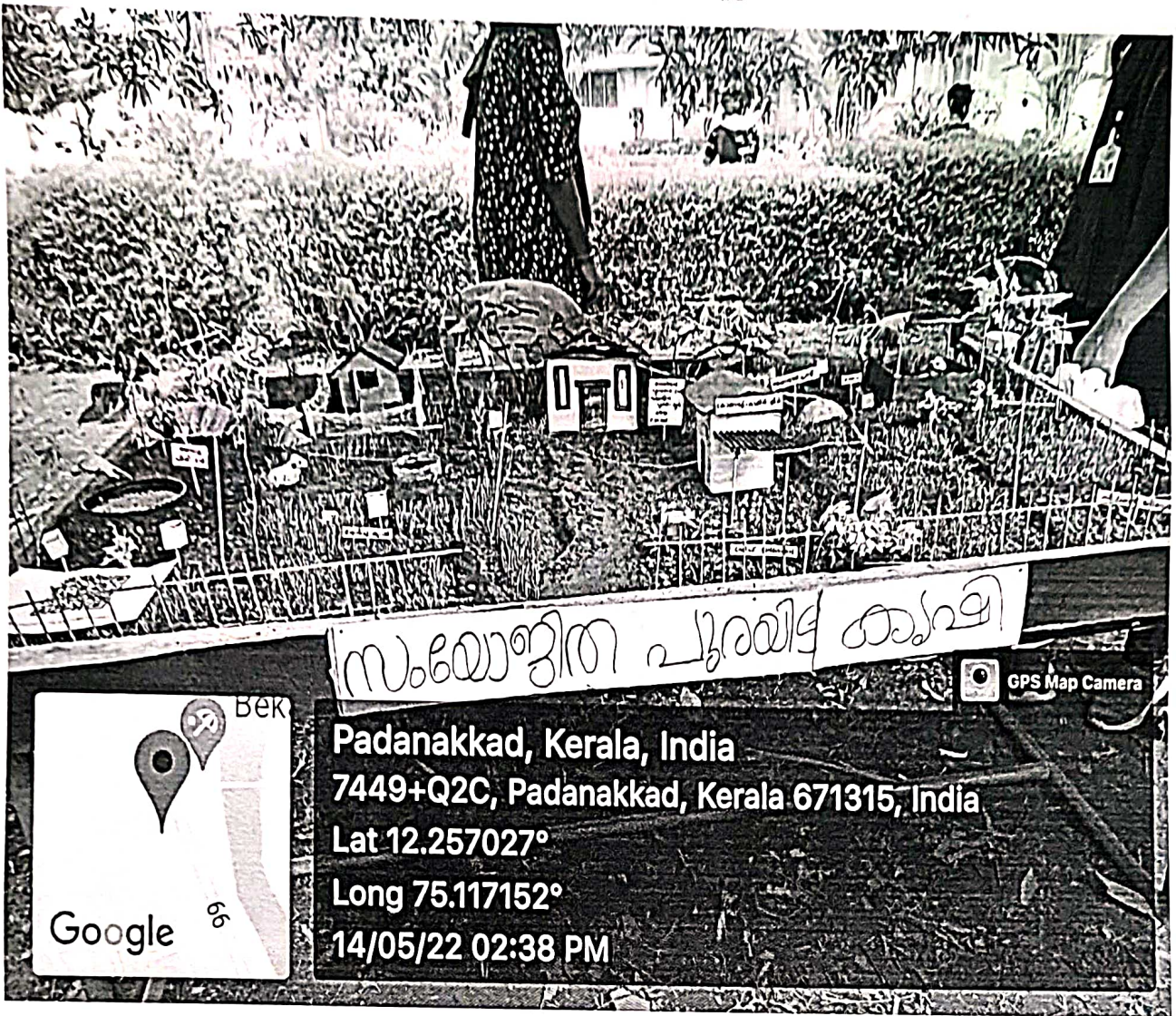


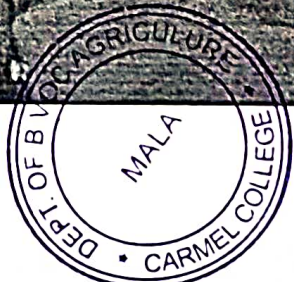
Padanakkad, Kerala, India
7449+Q2C, Padanakkad, Kerala 671315, India
Lat 12.257035°
Long 75.117243°
14/05/22 02:37 PM





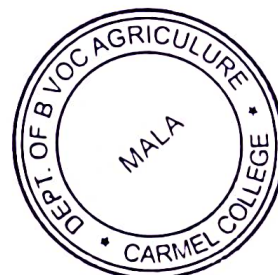


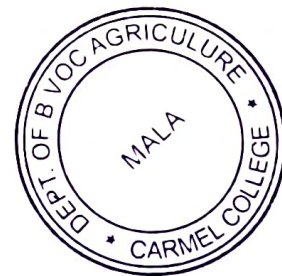


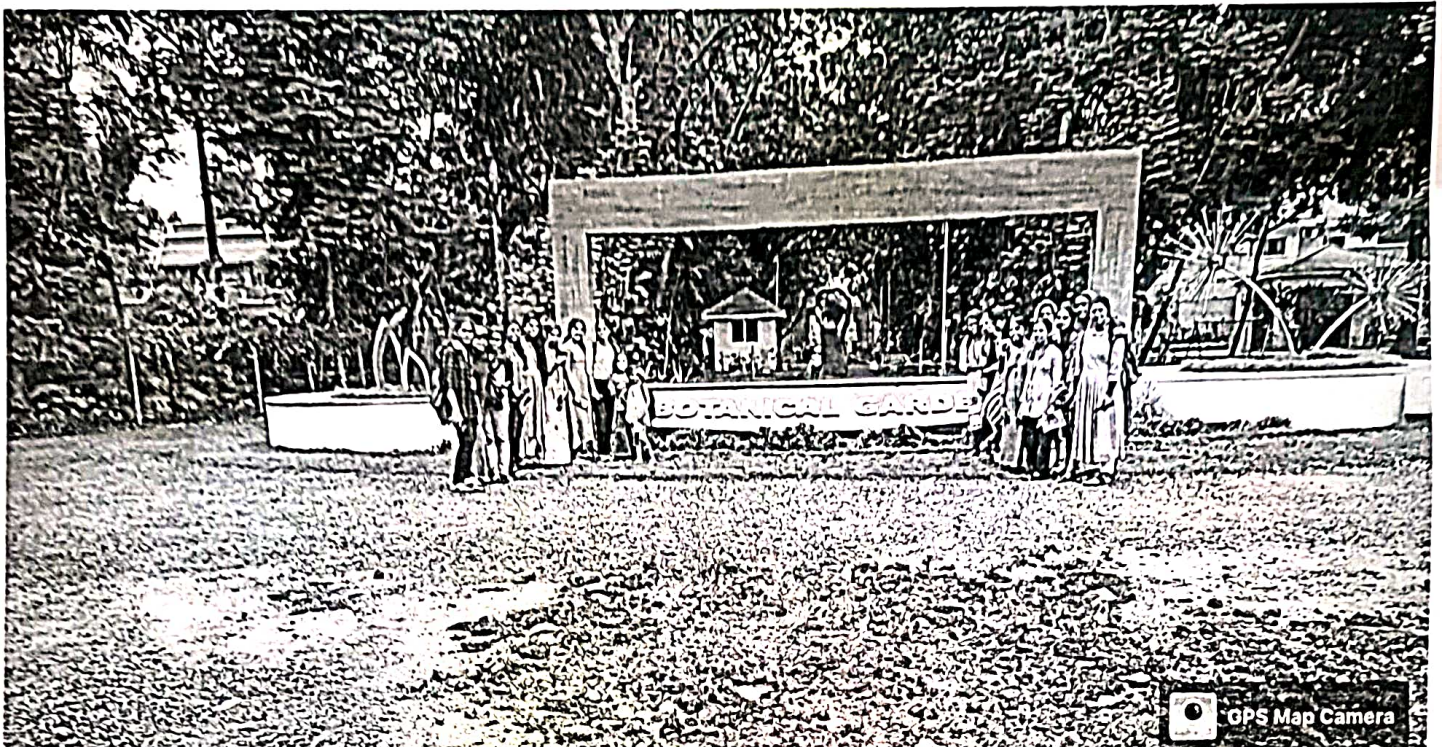


Department of Agriculture**Carmel College, Mala****2021-2022****Institutional Visit to TamilNadu Agricultural University**

Final year students (17 nos.) of Department of Agriculture were taken for an institutional visit to Tamil Nadu Agricultural University on 17th May 2022. Two of the faculties Dr. Manjusha Rani, Head of the Department and Ms. Jipcymol P, Assistant Professor, Department of Agriculture accompanied the students. The students first visited the Botanical Garden of the University where they familiarized with most of the flowering and ornamental plants of the garden. The rock garden present in the botanical garden was really amazing to visit. The students then visited the Centre for Plant molecular Biology and Biotechnology. The faculty of the Department first introduced the department and shared regarding the various activities of the department and was then taken to the different labs in the Department. They visited tissue culture lab, genomics labs, Bt lab and Bioinformatics lab. They were also familiarized with sophisticated equipment of the labs such as PCR machine, Gene gun, Deep freezers, microarray etc. In the afternoon the students were taken to the Fruit orchard of the Department of Horticulture, TamilNadu Agricultural University where they could study high intensity cultivation of different kinds of fruits such as mango, chicku etc. The grapevine fields of the department were attractive. Finally visited the Insect Museum of the Department of Entomology, TNAU which is the first in India. Thousands of different kinds of insects were maintained in the museum. Extensive collection of insects and expansive display was its uniqueness. Insects collected since the early 1900's were housed in the museum. The insects are well arranged in different and attractive patterns. The visit was concluded by 4.30 pm. The visit was really a good experience to the students as they could see and familiarize with different crops that are not grown in Kerala and some of the advanced equipment that are used in biotechnology laboratories.





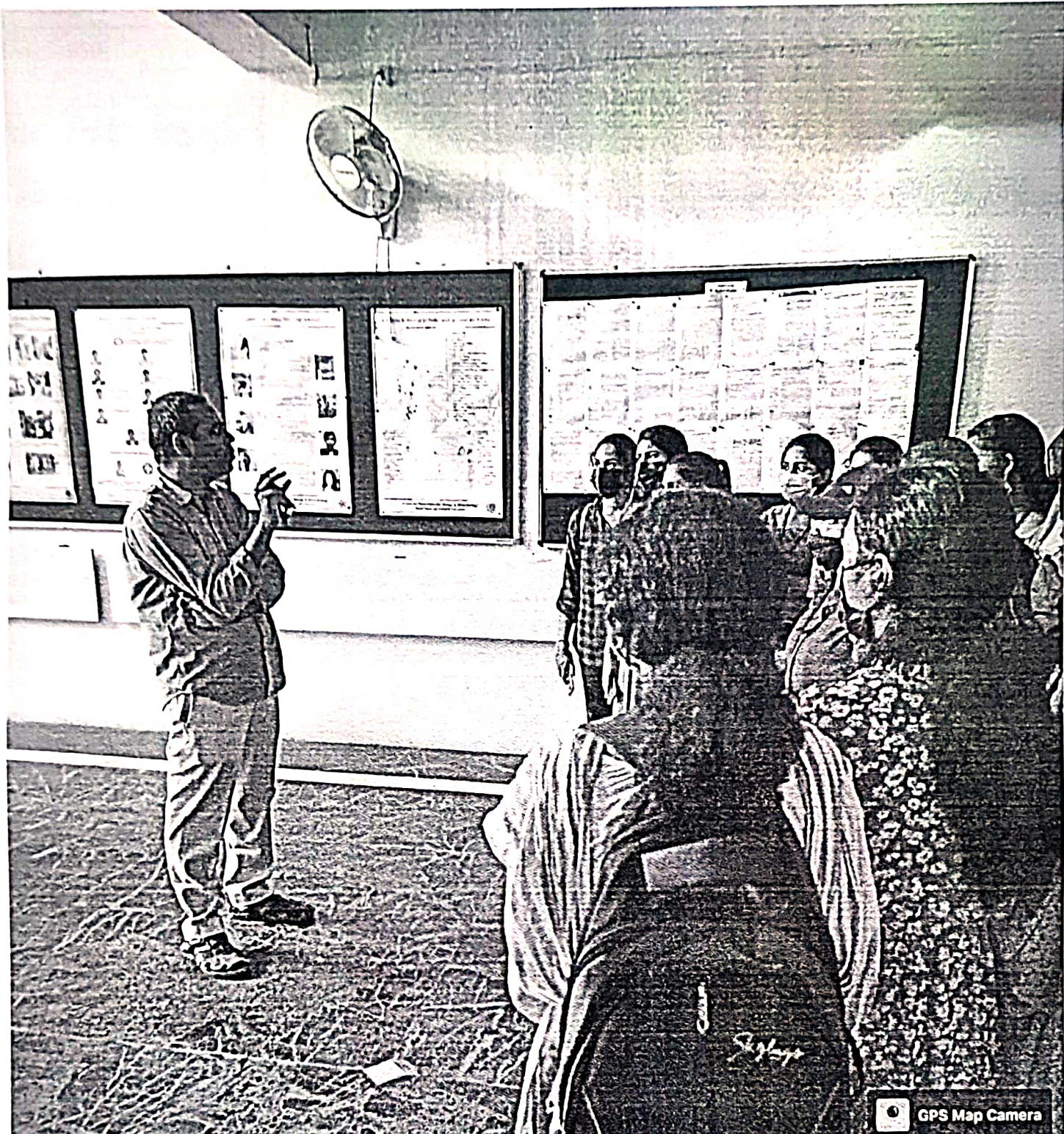


GPS Map Camera



Coimbatore, Tamil Nadu, India
 C-3, ABD, TNAU, Near, lolly Road, Tamil Nadu Agricultural University,
 Coimbatore, Tamil Nadu 641003, India
 Lat 11.017043°
 Long 76.931594°
 17/05/22 10:59 AM





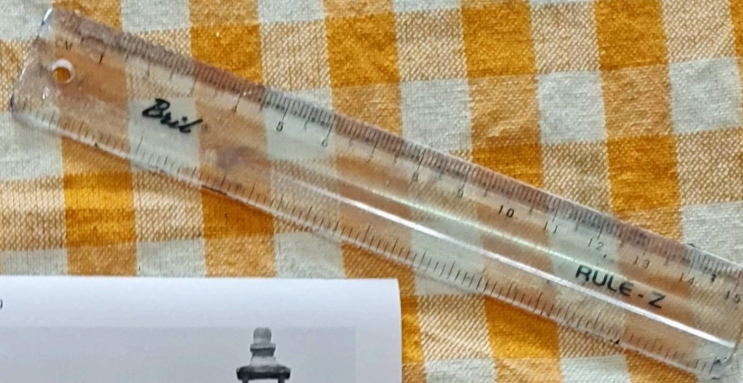
GPS Map Camera

Tamil Nadu
Agricultural University

Google

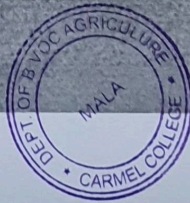
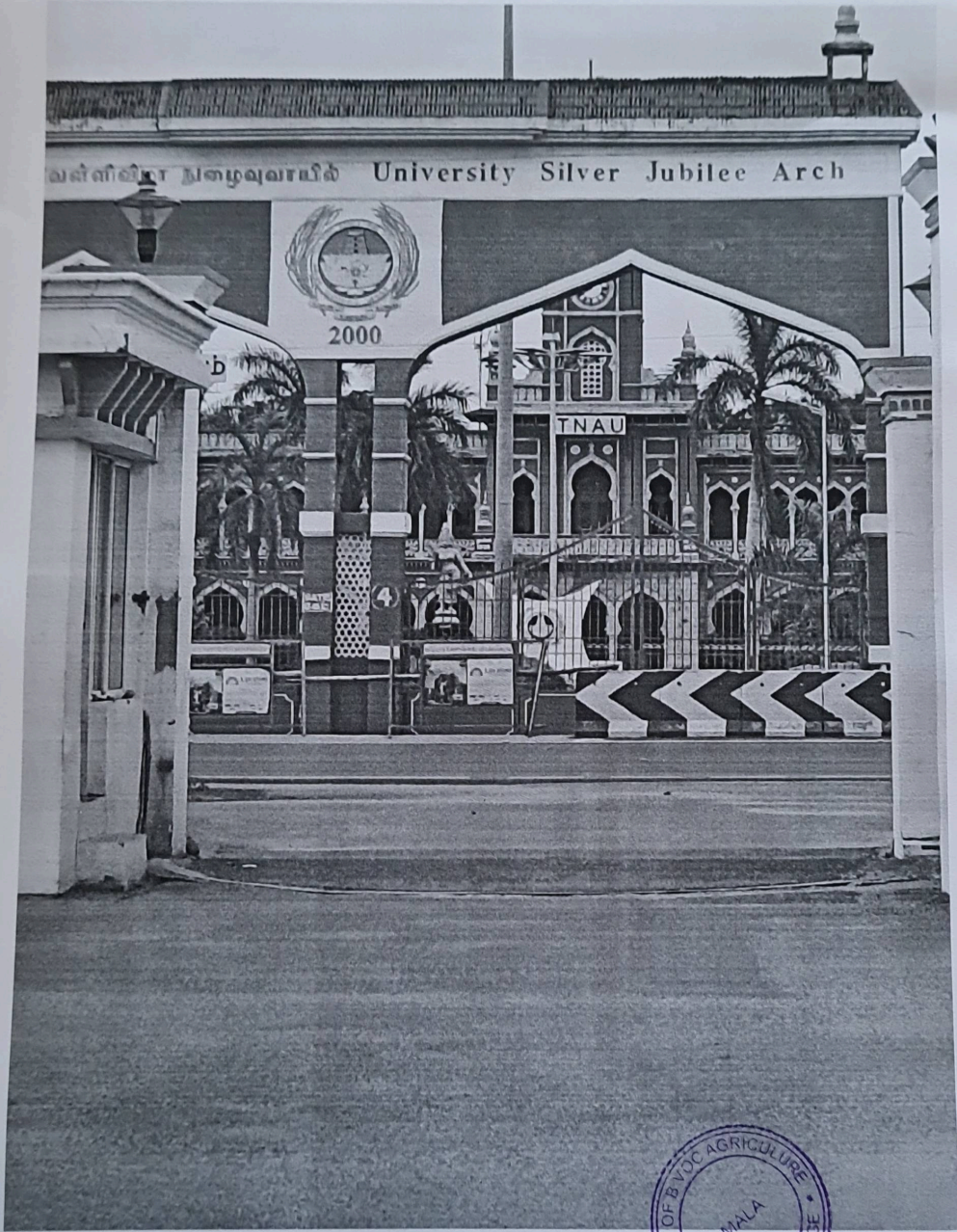
Coimbatore, Tamil Nadu, India
 2W6P+9PR, opposite to CPMB New Building, Tamil Nadu
 Agricultural University, Coimbatore, Tamil Nadu 641003, India
 Lat 11.011139°
 Long 76.936314°
 17/05/22 11:51 AM





9/2/22, 11:31 AM

TNAU 2.jpg



26/3/22

From,

Head of the Department
Department of commerce
Carmel College, Mala

To,

The Principal
Carmel College, Mala

Respected sister,

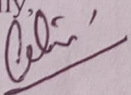
Sub: request for permission to go for industrial visit

I kindly request you to grant permission for II year B. com CA, B. Com Finance, I year M. Com students to go for industrial visit to 'Tolins Tyre manufacturing company, Kalady 'on 1-4-2022. The industrial visit is done as per their syllabus. 76 students name list and 4 teachers list is attached below.

Thanking you ,

Your's faithfully,

Celin K. A



HOD, Department of Commerce

Carmel College, Mala

Sanctioned

hi-AD
31/8/22

II B COM FINANCE

SL.NO.	NAME
1	A A SHAMIYA
2	AARATHY UNNI
3	AISWARYA JAYAN
4	ALEENA JOY
5	AMAL FATHIMA C N
6	ANAMIKA N S
7	ANJALI K S
8	ANJALY T S
9	ANJANA A A
10	ARCHANA M S
11	ARYA GIREESAN
12	ASHLY N S
13	ASWATHI M R
14	BHAGYASREE M U
15	DEVANANDA DILEEP
16	ELSA DONA
17	GREESHMA K S
18	HASNA HARISH
19	I G SREEDURGHHA
20	JESNA JOY
21	JOSHNA JOHN V
22	JUDY P J
23	KEERTHANA M A
24	LAKSHMIPRIYA K U
25	MERIN JOY
26	NAMISHA C N
27	NANDANA GIRISH
28	NANDANA T P
29	NANDHANA E U
30	NAVYA SADANANDAN
31	NEHA E S
32	NIKHITHA JOHN
33	POOJA ANTONY
34	RADHIKA M R
35	RISHANA P A
36	ROOPA POULOSE
37	SANDHRA SIBI
38	SHAHNA T
39	SNEHA K T
40	SREELAKSHMI K S
41	SUFANA A M
42	SWATHY V D
43	THASFIYA THAJUDEEN
44	VILMI T V

I M COM

1	AMRUTHA RAJEEV
2	ASWATHY T S
3	ATHIRA P R
4	CHAITHRA SIVAN
5	CHRISTY P J
6	RASMI P R
7	SALINI T
8	SHIZNA SHAJU
9	SIBY THOMS
10	ABILSHA AR
11	AGHI M A
12	ANJALI P D
13	ATHIRA V S
14	EMILIN JOSEPH
15	LIDIYA K X
16	PRAVEENA A P
17	RESIKA G NAIR
18	SANDRA G NAIR

II B Com COMPUTER APPLICATION

SL.NO	NAME OF STUDENT
1. 1	AISWARYA V T
2.	ANAGHA P A
3.	ANUGRAHA P R
4.	ANUPAMA MANOJ
5.	ARYA DAVIES
6.	KESIYA PAUL
7.	LAYA V A
8.	LIFMI ROSE RAPHY
9.	RAHEELA T I
10.	ROSHNA K R
11.	SANTHANA RAJEEV
12.	SREEKUTTY P A
13.	VISMAYA T V
14.	SUCHITHRA



TOLINS TYRES PRIVATE LIMITED

— Safer - Stronger - Lives Longer —

01/04/2022

TO WHOMSOEVER IT MAY CONCERN

Sub: Certificate of Industrial visit

This is to certify that 75 students (4th semester UG 1st semester PG) and 4 teachers of Commerce Department of Carmel College, Mala visited our company on 1st April 2022 as a part of their experiential learning. We hope that the interactive session on production and management of our company was beneficial for the students.

For Tolins Tyres Private Limited

Authorized Signatory





CARMEL COLLEGE

Nationally Re-accredited with 'A Grade' (Third Cycle)

Affiliated to University of Calicut

MALA – 680 732, Thrissur (Dt), Kerala

Phone: 0480 2890 247, Fax: 0480 2890247

E-mail: mail@carmelcollegemala.ac.in web: www.carmelcollegemala.ac.in

From,

The Principal
Carmel College, Mala

Date: 31-3-2022

To,

Tolins Tyre Manufacturing Company
Kalady

Sub: *Permission letter for Industrial Visit*

Sir,

On behalf of PG Department of Commerce, Carmel College, Mala, I am writing this letter for getting your permission to conduct an industrial visit in your Industry.

As part of experiential learning we decided to give some practical education to the students about the industrial procedure and its facility. For that, your firm is the best option to carry on such a project. In that case, we need your support. 76 students (4th semester UG & I semester PG) will be the part of the trip accompanied by 4 teachers. We just take a day for this industrial trip. We are planning this visit on April 1st 2022. Hope this date is suitable for you also.

If any inconvenience please inform our team.

Hope you understand the need of the trip for the education purpose.

Contact number:8606212144

E-mail: commerce@carmelcollegemala.ac.in

Yours faithfully



h.v. - A.B.
31/3/22
Principal
Carmel College
Mala

CARMEL COLLEGE MALA

Department of Chemistry

Kerala Solvant Extractions Ltd Koraty (22/4/22)

Kerala Solvent Extractions Ltd., is a public limited company with around 4500 shareholders. The last three decades have seen KSE emerging as a leader in solvent extraction and ready mixed cattle feed in the country. Today KSE commands the resources, expertise and infrastructure to manufacture a range of livestock feed in high volumes, coconut oil from coconut oil cake and refined edible oil.

BSc and MSc final year students (35) and two faculty members of Department of Chemistry visited Kerala Solvent Extractions Ltd, Koraty as part of study trip on 22nd April 2022.





KINFRA KORATTY
INDUSTRIAL
AREA PHASE I
Google

Koratty, Kerala, India
79F4+7Q3, Kinfra Koratty Industrial Area
Phase I, Koratty, Kerala 680309, India
22/04/22 12:01 PM



Princy K.G.
Dr. PRINCY K.G.
ASSOCIATE PROFESSOR & HEAD,
DEPT. OF CHEMISTRY
CARMEL COLLEGE, MALA

CARMEL COLLEGE MALA

Department of Chemistry

Student List for Factory Visit

Kerala Solvant Extractions Ltd Koraty (22/4/22)

1. Ancy C P Ancy
2. Angel A J Angel
3. Anjaly P J Anjaly
4. Ann Theresa Paul Ann
5. Anusree P S Anusree
6. Ashiba E A Ashiba
7. Aswathi M. Aswathi
8. Ayillya Devaraj Ayillya
9. Chinju Davis Chinju
10. Dini Paul Dini
11. Jasheena P J Jasheena
12. Melbymol James Melbymol
13. Neema Joy Neema
14. Neena Wilson Neena
15. Sandra Jose Sandra
16. Sandra Sabu Sandra
17. Alenda Joy Alenda
18. Alna Rose P. R Alna
19. Amritha Suresh Amritha
20. Amrutha S Nair N Amrutha
21. Aneena Thasneem T N Aneena
22. Anupama T G Anupama
23. Aswathy M G Aswathy
24. Diya Rose Davis Diya
25. Farsana Thajudeen Farsana
26. Himalakshmi V S Himalakshmi
27. Hridya C R Hridya
28. Jigitha Sajan Jigitha
29. Mary Sandra P J Mary
30. Meghna S Mohan Meghna
31. N S Kunjilakshmi N S
32. Philo Amala Antony Philo
33. Sona Antony Sona
34. Thasleema N Thasleema
35. Vyshnavi C C Vyshnavi



Princy K.G.
Dr. PRINCY K.G.
ASSOCIATE PROFESSOR & HEAD
DEPT. OF CHEMISTRY
CARMEL COLLEGE, MALA

DEPARTMENT OF COMPUTER SCIENCE

Report on project work done

The department of Computer Science offers Project based learning to the Final year students. Students are divided into groups of 4. The objective of the project work is to develop a quality software solution by following the software engineering principles and practices. During the development of the project the students should be involved in all the stages of the software development life cycle (SDLC). The main objective of this project course is to provide learners a platform to demonstrate their practical and theoretical skills gained during five semesters of study in the BCA Programme.

During project development students are expected to define a project problem, do requirements analysis, systems design, software development, apply testing strategies and do documentation with an overall emphasis on the development of robust, efficient and reliable software systems. The project development process has to be consistent and should follow standards. For example database tables designed in the system should match with the E-R Diagram. SRS documents to be created as per IEEE standards.

Students are encouraged to work on a project preferably on a live software project sponsored by industry or any research organization. Topics selected should be complex and large enough to justify as a BCA final semester project. The courses studied by the students during the BCA Programme provide them the comprehensive background knowledge on diverse subject areas in computer science such as computer programming, data structure, DBMS, Computer Organization, Software Engineering, Computer Networks, etc., which will be helping students in doing project work. Students can also undertake group projects to learn how to work in groups.

Project Details are given below :

SI NO	REG NO	NAME	PROJECT GUIDE	PROJECT TITLE
1	CRATBC A001	Ameesha Anilkumar	Ms Lakshmi Anand	On Road Vehicle Breakdown Assistance
2	CRATBC A002	Anukrishna Santhosh C	Ms Lakshmi Anand	On Road Vehicle Breakdown Assistance
3	CRATBC	Laya Jose	Ms Sandra	E- Vaccination System

	A003		Jose	
4	CRATBC A004	Vrinda Nenmeni	Ms Lakshmi Anand, Ms Sandra Jose	Quick Taxi
5	CRATBC A005	Amala Mariya Thomas	Ms Lakshmi Anand	On Road Vehicle Breakdown Assistance
6	CRATBC A006	Ann Paul	Ms Lakshmi Anand	On Road Vehicle Breakdown Assistance
7	CRATBC A007	Christeena K J	Ms Sandra Jose	E- Vaccination System
8	CRATBC A008	Civiya Varghese	Ms Sandra Jose	E- Vaccination System
9	CRATBC A009	Jisna Jose	Ms Sandra Jose	E- Vaccination System
10	CRATBC A010	Sneha K Joseph	Ms Lakshmi Anand, Ms Sandra Jose	Quick Taxi



DEPARTMENT OF BOTANY
EXPERIMENTAL LEARNING 2021-22
PG Programme

CP04. PRACTICALS OF PHYCOLOGY, BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS, MYCOLOGY AND LICHENOLOGY

Phycology

1. Collection, preparation and submission of algal herbarium (5 numbers).
2. Collection and study of the types mentioned below and their identification up to generic level using algal monographs:

Chlorophyta: *Pediastrum*, *Scenedesmus*, *Hydrodictyon*, *Ulva*, *Cladophora*, *Pithophora*, *Bulbochaeta*, *Cephaleuros*, *Draparnaldiopsis*, *Bryopsis*, *Codium*, *Caulerpa*, *Halimeda*, *Desmids* (*Closterium*, *Cosmarium*), *Nitella*.

Xanthophyta: *Botrydium*.

Bacillariophyta: *Biddulphia*, *Coscinodiscus*, *Cymbella*.

Phaeophyta: *Ectocarpus*, *Dictyota*, *Padina*, *Turbinaria*.

Rhodophyta: *Batrachospermum*, *Gracilaria*, *Champia*.

Bryology

1. Morphological and structural study of representative members of the following groups using whole mount preparations, dissections and transactions:

Asterella, *Targionia*, *Cyathodium*, *Lunularia*, *Pallavicinia*, *Dumortiera*, *Porella*, *Anthoceros*, *Sphagnum* and *Bryum*.

Pteridology

1. Collection, preparation and submission of five herbarium sheets of pteridophytes.
2. Study of vegetative and reproductive features of *Lycopodium*, *Ophioglossum*, *Angiopteris*, *Osmunda*, *Lygodium*, *Ceratopteris*, *Pteris*, *Asplenium*, *Blechnum*, *Cyathea*, *Gleichenia*, *Trichomanes*, *Salvinia* and *Azolla*.
3. Study of the following fossils: *Rhynia*, *Lepidodendron*, *Sphenophyllum*, *Calamites*, *Calamostachys*, *Zygopteris* and *Anachoropteris*.
4. Spore germination and development of prothallus in Knop's Agar medium.

Gymnosperms

1. Identification of petrifications, compressions, impressions: *Lyginopteris*, *Heterangium*, *Medullosa*, *Trignocarpus*, *Glossopteris*, *Caytonia*, *Pentaxylon* and *Cordaites*.
2. Study of vegetative and reproductive structures of *Zamia*, *Ginkgo*, *Pinus*, *Cryptomeria*, *Cupressus*, *Araucaria*, *Agathis*, *Podocarpus*, *Cephalotaxus*, *Ephedra* and *Gnetum*.

Mycology

1. Critical study of the following types with the help of fresh/preserved materials by making suitable micropreparations giving emphasis on systematic position, details of vegetative and reproductive structures:

Stemonitis, *Saprolegnia*, *Phytophthora*, *Albugo*, *Mucor*, *Pilobolus*, *Saccharomyces*, *Xylaria*, *Chaetomium*, *Peziza*, *Puccinia*, *Auricularia*, *Polyporus*, *Ganoderma*, *Lycoperdon*, *Dictyophora*, *Geastrum*, *Cyathus*, *Aspergillus*, *Curvularia*, *Alternaria*, *Fusarium*, *Colletotrichum*, *Parmelia*, *Usnea*.

Practical records:

Submission of certified record of practicals at the time of terminal evaluation.

Field work:

2 days of field work for the in situ study of the types of the above areas of study and submission of a field report.

CP05. PRACTICALS OF MICROBIOLOGY, PLANT PATHOLOGY, ANGIOSPERM TAXONOMY, ANGIOSPERM EMBRYOLOGY, PALYNOLOGY AND LAB TECHNIQUES.

Microbiology

1. Test for the presence of coliform bacteria in contaminated water.
2. Isolation of Eubacteria and Cyanobacteria from soil by dilution plate method.
3. Isolation of pure bacterial culture by streak plate method.
4. Staining of bacteria (negative staining, Gram staining and spore staining).
5. Demonstration of bacterial motility by hanging drop method.
6. Morphological studies on Scytonema, Aphanocapsa, Spirulina, Oscillatoria, Anabaena.

Plant Pathology

1. Submission of five herbarium sheets of pathological specimens.
2. Detailed lab study of the following diseases:
Bunchy top of banana, Bacterial blight of paddy, Bud rot of coconut, Mahali of Arecanut, Powdery mildew of rubber, Abnormal leaf fall of rubber, tikka disease of Ground nut, Late blight of potato, Blister blight of tea, wheat rust, coffee rust, grey leaf spot of coconut, Phytophthora foot rot of pepper, rhizome rot of ginger and turmeric, angiospermic parasites- Viscum and Dendrophoe.
3. Technique of isolation and pure culture of pathogens.

Angiosperm Anatomy

1. Study of anomalous secondary growth in roots and stems of Aristolochia, Strychnos, Amaranthaceae, Nyctaginaceae, Bignoniaceae and Agavaceae.
2. Nodal anatomy of different types.
3. Leaf anatomy: epidermal peels and TS of lamina.

Embryology

1. Study of anther development of Datura.
2. Preparation of dissected whole mounts of microsporangium.
3. Study of megaspore mother cell, megaspore and embryo sac.
4. Study of the receptivity of stigma and in situ germination of pollen.
5. Dissection of stages in the development of embryo and endosperm.
6. Pollen germination using hanging drop technique.
7. Demonstration of intra ovarian pollination.

Palynology

1. Analysis of honey for microscopic examination of pollen.
2. Calculation of percentage of viable pollen by using T Z test.
3. Study of pollen wall by acetolysis.

Lab Techniques

1. Measurement of microscopic objects - Micrometry.
2. Camera lucida drawing - calculation of magnification
3. Double stained permanent sections - free hand section, Microtome serial sections.
4. Preparation of whole mounts, macerations and smears.
5. Submission of 10 permanent slides - which should include microtome serial sections, free hand sections, macerations, whole mounts and smears.

Practical records:

Submission of certified record of practicals at the time of terminal evaluation.

Field work:

2 days of field work for the in situ study of the types of the above areas of study and submission of a field report.



CP09. PRACTICALS OF CELL BIOLOGY, MOLECULAR BIOLOGY, BIOPHYSICS,
CYTOGENETICS,

Cell Biology

1. Study of Mitosis in root tip cells.
2. Pre-treatment of root tips with colchicine /hydroxy quinoline /paradichlorobenzene and study of chromosomes in Chlorophytum,/ Zea mays/ Crotalaria/ Cyanotis.
3. Isolation of plastids and mitochondria.
4. Chromosome banding

Molecular Biology

1. Working out problems from molecular genetics.
2. Isolation of nucleic acid and identification of histones by SDS-PAGE.
3. Isolation of plant DNA and its quantification by spectrophotometric/ calorimetric method.
4. Immunological techniques: ELISA and Western Blot.

Biophysics

1. Preparation of buffers and measurement of pH using pH meter.
2. Determination of isoelectric pH.
3. Paper chromatography: Separation of sugars.
4. Thin layer chromatography- separation of amino acid mixtures.
5. Calorimetric and spectrophotometric estimation of proteins by Biuret / Lowry's method.
6. Estimation of amino acid by ninhydrin method (colorimetric).

Cytogenetics

1. Induction of polyploidy using colchicine; different methods of the application of colchicine.
2. Effect of induced and spontaneous polyploidy on plant phenotype, meiosis, pollen and seed fertility and fruit set.
3. Preparation of karyotype and ideogram of plant meristematic cells.
4. Cytological studies in callus tissues.
5. Study of meiosis in translocation heterozygotes (Rheo discolor)
6. Study of polytene chromosomes.

Preparation of lab record and submission for valuation.

Visit to a reputed molecular biology lab and submission of a report.



CP10. GENETICS, BIOSTATISTICS, PLANT BREEDING, PLANT ECOLOGY, CONSERVATION BIOLOGY, PHYTOGEOGRAPHY AND FOREST BOTANY

Genetics

1. Problems from linkage, tetrad analysis, quantitative genetics and population genetics.

Biostatistics

1. Problems from Mean, standard deviation, Coefficient of variation, tests of significance and correlation analysis.

2. Use of computer programmes for statistical analysis.

Plant Breeding

1. Study of floral morphology and flower structure in crop plants- rice, cashew, pulses, Solanum, Capsicum.

2. Practice of hybridization technique in self and cross pollinated plants mentioned in (1).

3. Biometrical techniques in Plant Breeding- analysis of variability.

Ecology and Conservation biology

1. Determination of food chains and food web in aquatic ecosystem.

2. Determination of the minimum size of the quadrat suitable for an area using species area curve method.

3. Determination of the Importance Value Index (IVI) of plant species in the community by quadrat, line and belt transect methods.

4. Comparative study of polluted and non-polluted aquatic ecosystems.

5. Visit to a meteorological station, national park or wild life sanctuary, sewage treatment unit and major construction site.

6. Estimation of dissolved oxygen content in the water sample by Winkler's method.

7. Determination of primary production in water samples by light and dark bottle method (Winkler's method).

8. Determination of dissolved carbon dioxide content in water samples.

9. Determination of frequency of plant species of an area and heterogeneity of vegetation using transect method.

Phytogeography

1. Identification of the various floristic and vegetational regions of the world and India in maps.

Forest Botany

1. Study of the major and minor forest products of Kerala and their uses.

Preparation and submission of lab record

Visit to one plant breeding station and one ecologically sensitive area and submission of reports



CP14. PRACTICALS OF PLANT PHYSIOLOGY, METABOLISM, BIOCHEMISTRY, ANGIOSPERM MORPHOLOGY AND TAXONOMY

Plant Physiology

1. Determination of water potential by tissue weight change method.
2. Extraction of leaf pigments and preparation of absorption spectra of chlorophylls and carotenoids.
3. Demonstration of Hill reaction.
4. Separation of leaf pigments by paper chromatography and column chromatography.
5. Effects of light intensity on photosynthesis by Wilmot's bubbler.
6. Determination of sugars and amino acids in germinating seed by TLC.
7. Extraction of seed proteins based on solubility.
8. Biochemical analyses of leakages from seeds during germination.
9. Analyses of proline in water stressed plants.
10. Testing of seed viability by NBT test.
11. Changes in the reserve proteins during germination.

Metabolism

1. Extraction of enzyme: Any enzyme.
2. Effect of substrate on enzyme and determination of its K_m value.
3. pH dependent activity profile of enzymes.
4. Ammonium sulphate precipitation of enzymes.
5. Desalting of proteins by gel filtration using Sephadex G25/ dialysis
6. Separation of isoenzymes by native PAGE.
7. Determination of enzyme / protein sub units by SDS PAGE.
8. Metabolism of germinating seeds - changes in metabolisable carbohydrates.

Biochemistry

1. Qualitative tests for monosaccharides, reducing and non reducing oligosaccharides, starch, amino acids and protein.
2. Quantitative estimation of reducing sugars and starch.
3. Qualitative tests for lipids. Emulsification, saponification, acrolein test, Boundouin's test.
4. Quantitative estimation of amino acids.
5. Quantitative estimation of protein by Biuret / Branford's /Lowry et al method.
6. Quantitative estimation of DNA and RNA (colorimetric / spectrophotometric)
7. Quantitative estimation of total phenolics.

Morphology

1. Preparation of cleared whole mounts of floral parts to show vasculature.
2. Examination of the following with the help of dissections and hand sections: Transmitting tissues/canals in style and stigma; Different types of ovaries; Different types of placentation, vasculature of androecium and gynoecium in special types of flowers.

Taxonomy

1. Familiarization with local flora and construction of keys – use of floras in identification up to species.
2. Study of diagnostic features of the families studied in the theory paper with special reference to their economic aspects.
3. Study of the following families with special reference to morphology of modified parts, economic importance, interrelationships and evolutionary trends: Magnoliaceae, Ranunculaceae, Menispermaceae, Nymphaeaceae, Polygalaceae, Caryophyllaceae, Clusiaceae, Sterculiaceae, Meliaceae, Sapindaceae, Rosaceae, Melastomaceae, Rhizophoraceae, Aizoaceae, Rubiaceae, Sapotaceae, Gentianaceae, Boraginaceae, Convolvulaceae, Scrophulariaceae, Pedaliaceae, Verbenaceae, Nyctaginaceae, Euphorbiaceae, Urticaceae, Casuarinaceae, Orchidaceae, Zingiberaceae, Amaryllidaceae, Commelinaceae, Araceae, Cyperaceae and Poaceae.
4. Dissection of at least two members of each family in the laboratory, making suitable sketches, describing them in technical terms and identifying them constructing appropriate floral diagrams.
4. Field study of three days under the guidance and supervision of teachers at an ecologically different locality and submission of a field study report certified by the teacher concerned. The report should contain ecology of flora of the area studied.
5. Collection of plant specimens following the standard means of plant collection for preparation of herbarium. Each student shall submit a minimum of 25 such herbarium specimens with QR code along with the field book for the Practical examination.
6. Problems in Bar Coding

CP15. PRACTICALS OF PLANT RESOURCES, BIOTECHNOLOGY AND BIOINFORMATICS

Plant Resources

1. Morphological study of the source plants mentioned in the theory syllabus and identification of the plants and plant products.

Biotechnology- A. Tissue Culture.

1. Preparation and sterilization of culture media.
2. Culturing of Carrot /Tobacco/Datura.
3. Estimation of cell growth in callus culture by fresh wt. and dry wt.
4. Induction of multiple shoots using axillary and apical meristems as explants.
5. Plantlet regeneration from callus.
6. Identification of secondary metabolites in cultures.

Biotechnology- B. Genetic Engineering

Isolation of DNA.

Bioinformatics-

A. Computer Application

1. Acquiring basic computer operation and internet browsing skills in Windows and Linux platforms.
2. Acquiring basic word processing/ data entry skills using popular (both commercial and open source) packages such as MS-Word, K-Word, Open Word, PageMaker.
3. Acquire graphic processing skills using popular packages such as PhotoShop, Corel Draw, Chem Draw.
4. Preparation of scientific presentations using packages such as MS-PowerPoint.
5. Use of statistical packages such as SPSS, Biostat, Origin, MS-Excel.

B. Bioinformatics

1. Acquisition of basic skills in Internet browsing
2. Use of web browsers and search engines.
3. Use of biological and bioinformatic websites Agris, Agricola, BIOSIS, CABWeb.
4. Visit to Bioinformatics websites: NCBI, SWISS PROT, PIR, PDB.

Submission of lab record

Submission of 10 plant products directly collected by the student from the field with a note on the source plant and plant part.



BOT04ET01-6. Genetics and Crop Improvement

Practicals

1. Morphological and floral studies of major crops.
2. identification of crop species/ subspecies/ varieties of the above crops.
3. Identification of the major pests and diseases of the above crop plants and submission of specimens.
4. Study of chemical composition and use of major pesticides, weedicides, fungicides and other plant protection formulations.
5. Visit to two major plant breeding stations of South India and submission of a certified report/ or placement training at a plant breeding institute for 30 days and submission of a certified report.

BOT04ET02-2. Pathology of Plantation Crops and Spices.

Practicals

1. Isolation of fungal and bacterial pathogens of the above diseases, growing them in appropriate nutrient media and identification of the pathogens and preparation of drawings and photographs.
 2. Field collection and preservation of the infected parts in the case of the above diseases and preparation of morphological and microscopic drawings and photographs and identification of the diseases at field and lab levels.
 3. Study of disease cycle of a pathogen in any one of the above crop plants and demonstration of Koch's postulates and preparation of an illustrated report.
 4. Visit to two crop research stations and first hand acquaintance with the major plant protection activities in the station and submission of reports/ or lab placement training in the plant protection division of a crop research station for a period of 30 days and submission of a report.
-

DEPARTMENT OF BOTANY
EXPERIMENTAL LEARNING 2021-22
UG Programme

**CORE COURSE: 1.ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY
AND PALYNOLOGY**

PRACTICAL (ANGIOSPERM ANATOMY)

1. Identification at sight the different types of tissues and vascular bundles.
2. Primary structure of stem, root and leaf of Dicots and Monocots
 - a. Dicot stem : normal –*Eupatorium*; bi-collateral – *Cephalandra*
 - b. Dicot root – Pea
 - c. Monocot stem - Bamboo
 - d. Monocot root – *Musa*
 - e. Dicot leaf – *Ixora*
 - f. Monocot leaf – Grass
3. Secondary structures: Dicot stem– *Vernonia*, Dicot root– *Tinospora*
4. Anomalous secondary thickening in *Boerhaavia*, *Bignonia* and *Dracaena*

PRACTICAL (REPRODUCTIVE BOTANY & PALYNOLOGY)

1. *Datura* anther T.S. (mature).
2. Types of ovules: Orthotropous, Anatropous and Campylotropous (Slides only, drawing not required)
3. Dicot and monocot embryo of Angiosperms (Slides only, drawing not required)
4. Pollen morphology of *Hibiscus*, and pollinia of *Cryptostegia* / *Calotropis* by acetolytic method
5. Viability test for pollen.
 - a. *In vitro* germination using sugar solution. (cavity slide method)
 - b. Tetrazolium test
 - c. Acetocarmine test (Acetocarmine & Glycerine 1:1)



CORE COURSE: 2 MICROBIOLOGY, MYCOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

PRACTICAL (MICROBIOLOGY)

1. Simple staining
2. Gram staining – Curd, root-nodules
3. Culture and isolation of bacteria using nutrient agar medium (demonstration only).

PRACTICAL (MYCOLOGY)

1. Micropreparation – Lactophenol cotton blue – Slides of the above mentioned types

PRACTICAL (LICHENOLOGY)

1. Identification of different forms of Lichens.
2. *Usnea* : structure of thallus, fruiting body

PRACTICAL (PLANT PATHOLOGY)

Identification of the disease, pathogen, symptoms and control measures of the following:
(drawing not required)

- a. Citrus canker
- b. Mahali disease
- c. Tapioca mosaic disease
- d. Blast of Paddy
- e. Quick wilt of pepper
- f. Bunchy top of banana
- g. Grey leaf spot of coconut

SUBMISSION (PLANT PATHOLOGY)

Students are expected to submit five properly identified Pathology specimens /herbarium during the practical examination of Paper-I held at the end of 4th semester. Diseases mentioned in the syllabus or any locally available common diseases of crop plants can be selected for submission.



CORE COURSE : 3
PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY

PRACTICAL (PHYCOLOGY)

1. Identification of the vegetative and reproductive structures of the types studied.
 - a. Cyanophyceae : *Nostoc*
 - b. Chlorophyceae: *Chlorella, Volvox, Oedogonium, Chara*.
 - c. Xanthophyceae: *Vaucheria*.
 - d. Bacillariophyceae: *Pinnularia*.
 - e. Phaeophyceae: *Sargassum*.
 - f. Rhodophyceae: *Polysiphonia*.

PRACTICAL (BRYOLOGY)

1. *Riccia* – Habit, Anatomy of thallus, V.S. of thallus through antheridium, archegonium and sporophyte.
2. *Anthoceros*- Habit, Anatomy of thallus. V.S. of thallus through antheridium, archegonium and sporophyte.
3. *Bryum* (due to non-availability of *Funaria* at lower altitudes) - Habit, structure of antheridial cluster, archegonial cluster, L.S. of sporophyte.

PRACTICAL (PTERIDOLOGY)

1. *Psilotum*- habit, T.S. of stem, C.S. of synangium (slides only)
2. *Selaginella* – habit, T.S. of stem, T.S. of rhizophore, L.S. of strobilus
3. *Equisetum* - habit, T.S. of stem, L.S. of strobilus
4. *Pteris* - habit, T.S. of stem, C.S. of sporophyll

CORE COURSE: 4
METHODOLOGY AND PERSPECTIVES IN PLANT SCIENCE

PRACTICALS (SCIENTIFIC METHODS)

1. Bibliography searches using online tools
2. Familiarizing latest methods of ICT based presentations

PRACTICAL (BIOSTATISTICS)

1. Work out problems under all types mentioned in the syllabus. One example each from all categories should be recorded.
2. Familiarize the technique of data representation (bar diagram, histogram, pie-diagram and frequency curve (both manual and using computer)).

PRACTICAL (BIOPHYSICS)

1. Preparation of solutions of known concentrations using pure samples and stock solutions
2. Preparation of buffers
3. Measurement of pH using pH meter.
4. Demonstration of the working of different kinds of centrifuges

PRACTICALS (MICROTECHNIQUE)

1. Parts of microscope and its operation (drawing not required)
2. Free hand sectioning of stem, leaves, Staining and mounting.
3. Measurement of pollen size using micrometer.
4. Demonstration of dehydration, infiltration, embedding and microtoming

CORE COURSE : 6
GYMNOSPERMS, PALAEOBOTANY, PHYTOGEOGRAPHY AND
EVOLUTION

PRACTICAL (GYMNOSPERMS)

1. *Cycas*- Habit, coralloid root, T.S. of coralloid root, T.S. of leaflet, T.S. of rachis, male cone and L.S. of male cone , microsporophyll, megasporophyll, T.S. of microsporophyll, L.S. of ovule and seed.
2. *Pinus*- branch of unlimited growth, spur shoot, T.S. of stem and needle, male cone and female cone, L.S. of male cone and female cone, seed.
3. *Gnetum*- Habit, stem T.S., leaf T.S., male and female cones, L.S. of ovule, seed.

PRACTICAL (PALAEOBOTANY)

- 1 Fossil Pteridophytes - *Rhynia* stem, *Lepidodendron* and *Calamites*
 - 2 Fossil gymnosperms- *Williamsonia*
- (Drawings may be replaced by photos with critical notes in the record)

PRACTICAL (PHYTOGEOGRAPHY)

- 1 Mark the phytogeographic zones of India.



CORE COURSE: 7
ANGIOSPERM MORPHOLOGY AND SYSTEMATICS

PRACTICAL (ANGIOSPEM MORPHOLOGY)

1. Identify the types of inflorescence and fruits mentioned in the syllabus.
2. All the types mentioned under inflorescence and fruits must be represented in the photo album. (All drawings in records are replaced by photo album submission).

PRACTICAL (SYSEMATICS)

1. Students are expected to work out at least two members of each family mentioned in the syllabus and make suitable diagrams (floral diagram and floral formula not needed). Describe them in technical terms and identify up to species using the Flora. Orchidaceae may be excluded from practical examination scheme.
2. Students shall be able to prepare artificial key to segregate any five given plants. This must be recorded.
3. Familiarization of herbarium techniques (Demonstration only).
4. Mounting of a properly dried and pressed specimen of any common wild plant (rare, endangered or endemic plants should not be collected for the purpose) from any one of the families mentioned in the syllabus, with proper herbarium label (to be submitted in the record book).
5. Every student shall submit original images of plants, at least one from each family mentioned in the syllabus, duly certified by Head of the department, at the time of examination. The images of plants should be properly identified and they should carry details like systematic position, GPS location, date, name and reg. no. of the student etc. Habitat, Habit, Inflorescence and single flower should be represented. Web sourced and outsourced images should not be used. The images can be submitted along with the photo album containing images of inflorescence and fruits mentioned under morphology. Individuality should be strictly maintained while preparing the photo album.
6. It is compulsory that every student has to undertake field study trips of 3-5 days to study vegetation of ecologically different areas, under the guidance of teachers. Visits to standard Herbaria, Organizations/ Institutes involved in exploring plant resources, Botanical museums etc. may be conducted as part of study tour. Local habitats like sacred groves, rice fields, wetlands, forests, grasslands etc. also can be selected for field trips. Avoid visit to tourist places with meager plant diversity and of having only entertainment value. Submit a field visit report countersigned by the Head of the department during the practical examination.
7. If a student fails to undergo the study tour he /she may not be permitted to attend the examination.



CORE COURSE: 8
TISSUE CULTURE, HORTICULTURE, ECONOMIC BOTANY AND
ETHNOBOTANY

PRACTICAL (TISSUE CULTURE)

1. Preparation of nutrient medium – Murashige and Skoog medium using stock solutions.
2. Familiarize the technique of preparation of explants, surface sterilization, inoculation and subculturing.
3. Preparation of synthetic seeds.
4. Demonstration of anther culture.

PRACTICAL (HORTICULTURE)

1. Preparation of nursery bed and polybag filling.
2. Preparation of potting mixture – Potting, repotting.
3. Field work in cutting, grafting, budding, layering (drawing not required).
4. Familiarizing gardening tools and implements. (drawing not required)
5. Establishment of vegetable garden/ Visit to a horticulture station.
6. A brief report of item no. 5 may be recorded.

PRACTICAL (ECONOMIC BOTANY)

1. Students shall be able to identify plants or plant products (raw or processed) studied in theory and shall be able to write Botanical names, Family and morphology of useful parts of source plants.
2. Students need not make any illustrations but make a table in the record giving the details of the items mentioned in the theory syllabus.

PRACTICAL (ETHNOBOTANY)

Students are expected to identify the plants mentioned in the Ethnobotany syllabus and it must be given as a table showing Common name, Binomial, Family and Ethnobotanical significance in the record book. (Drawing not required)



CORE COURSE: 9
CELL BIOLOGY AND BIOCHEMISTRY

PRACTICAL (CELL BIOLOGY)

1. Mitosis - Acetocarmine squash preparation of Onion root tip.
2. Calculation of mitotic index
3. Demonstration of meiosis in *Rhoeo/ Chlorophytum/ Maize* and identification of different stages of Meiosis.

PRACTICAL (BIOCHEMISTRY)

1. Qualitative tests for monosaccharides, and reducing non reducing oligosaccharides, starch, amino acids and protein.
 1. Molisch's test for all carbohydrates,
 2. Benedict's test for reducing sugars
 3. Barfoed's test for monosaccharides
 4. Seliwanoff's test for ketoses
 5. Fearson's test (methyl amine test) for reducing disaccharides
 6. Iodine test for starch
 7. Ninhydrin test for amino acids and protein
 8. Xanthoproteic test for amino acids with aromatic R-groups
 9. Millon's test for tyrosine
 10. Hopkins- Cole test for tryptophan
 11. Biuret test for peptide linkage and proteins
2. Quantitative estimation of protein by Biuret method. (Demonstration only)
3. Quantitative estimation of DNA and RNA by colorimetric/ spectrophotometric method (Demonstration only)
4. Colorimetric estimation of reducing sugars in germinating seeds (Demonstration only)



CORE COURSE: 10
GENETICS AND PLANT BREEDING

PRACTICAL (GENETICS)

1. Students are expected to work out problems related to the theory syllabus. One problem each from all the types mentioned should be recorded.
 - a. Monohybrid cross
 - b. Dihybrid cross
 - c. Test cross and back cross
 - d. Determination of genotypic and phenotypic ratios and genotype of parents
 - e. Non epistasis
 - f. Complementary gene interaction
 - g. Epistasis: dominant and recessive
 - h. Polygenic interaction
 - i. Multiple allelism
 - j. Chromosome mapping
 - k. Calculation of Coincidence and interference

RACTICAL (PLANT BREEDING)

1. Techniques of emasculation and hybridization of any bisexual flower.
2. Floral biology of Paddy, any one Pulse and Coconut tree.
3. Visit to a plant breeding station and submission of its report.

CORE COURSE: 11
BIOTECHNOLOGY, MOLECULAR BIOLOGY AND
BIOINFORMATICS

PRACTICAL (BIOTECHNOLOGY)

1. Extraction of DNA from plant tissue.
2. Study of genetic engineering tools and techniques using photographs/diagram (Southern blotting, DNA finger printing, PCR)

SUBMISSION (MOLECULAR BIOLOGY)

Visit a research station with well-equipped Biotechnology / Molecular biology lab and submit a duly certified detailed report of the same during the practical examination.

RACTICAL (BIOINFORMATICS)

1. Familiarizing with the different data bases mentioned in the syllabus.
2. Molecular visualization using Rasmol.
3. Blast search of nucleotide sequences

CORE COURSE: 12
PLANT PHYSIOLOGY AND METABOLISM

PRACTICAL

Students should familiarize experiments and details must be recorded. (Drawing not required)

1. Fruit ripening/Rooting from cuttings (Demonstration only).

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2. Relation between water absorption and transpiration.

3. Separation of leaf pigments by paper chromatography/ column chromatography /TLC.

5. Effects of light intensity on photosynthesis by Wilmot's bubbler.

4. Thistle funnel osmoscope

5. Ganong's Potometer

6. Ganong's light-screen

7. Ganong's respirometer

8. Kuhne's fermentation vessel

9. Mohl's half-leaf experiment

10. Absorbotranspirometer

11. Demonstration of gravitropism using Klinostat.

CORE COURSE: 13
ENVIRONMENTAL SCIENCE

PRACTICAL

1. Construct a food web from the given set of data, (Representative of a natural ecosystem). (Drawing not required).

2. Construct ecological pyramids of number, biomass and energy from the given set of data (Representative of a natural ecosystem). (Drawing not required).

3. Study of plant communities: Determination of density, abundance, dominance, frequency by quadrat method.

4. Demonstration of determination of Dissolved Oxygen by Winkler's method.

5. Study of morphological and anatomical characteristics of plant groups: Hydrophytes, Xerophytes, halophytes, epiphytes, parasites. (Drawing not required)

CORE COURSE: 14
ELECTIVE-3 : GENETICS AND CROP IMPROVEMENT

PRACTICAL

1. Visit a leading breeding station in South India and a detailed report should be included in the practical record. The record duly certified by HoD should be submitted at the time of practical examination of core practical paper III.

2. Make illustrations on the floral biology of Rice, Cashew and *Solanum* spp.

3. Demonstration of hybridization in Rice, Cashew and *Solanum* and describe the procedure.

4. Study the variability under induced stress (salinity and moisture) of seedlings of rice and green gram and record the observations

Hands on Training on “Assembling of LED Bulbs”
Dept. of Physics & Electronics Club
Carmel College, Mala



The Department of Physics & Electronics Club jointly conducted a Hands on Training on “Assembling of LED Bulbs” in association with Brain Society , Mala in connection with Energy Conservation Day on 10th December 2021 at Brain Society. Brain Society members and students of the department actively participated in the programme. Students trained the members to assemble the LED tubes and also explained the importance of LED bulbs in energy conservation and also in saving electricity bills.



CARMEL COLLEGE, MALA
DEPARTMENT OF BFSI
INDUSTRIAL VISIT TO MASCOV TEA FACTORY VAGAMON
2021-22

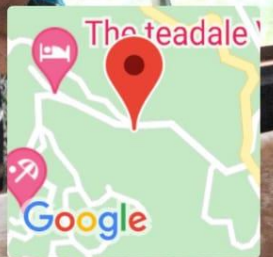
Industrial visits sensitises students to the practical challenges that organisations face in the technical world. Industrial visits also give greater clarity about various technical concepts for students as they can practically see how these concepts are put into action.

The department of BFSI arranged a one day industrial visit to Mascov Tea Factory Vagamon for the first year and second year students on 1 April, 2022. There were 49 students and the students were accompanied by 2 faculties of the department – Ms.Maneesha T M (H O D) and Ms. Varna Jose. The students visit tea factory and got to know the many interesting facts related to the process of manufacturing tea and all other related aspects of selling and distribution. The factory depicts the different process through which the tea is processed were witnessed by the students at various stages of the tea processing such as crush, tear, curl. The students were provided facility for purchasing different varieties of tea packets.





Vagamon, Kerala, India
MWG5+8QV, Vagamon, Kerala 685503, India
Lat 9.675355°
Long 76.910285°
01/04/22 02:59 PM



Vagamon, Kerala, India
MWG5+8QV, Vagamon, Kerala 685503, India
Lat 9.675376°
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CARMEL COLLEGE

Mala, Thrissur District, Kerala-680732

(Affiliated to the University of Calicut

Re-accredited by NAAC with 'A' Grade in the Third Cycle)

DEPARTMENT OF POLITICAL SCIENCE

National Webinar

Theme - Constitutional morality,
caste discriminations & social inclusion



Resource person:



DR.MV BIJULAL

(ASSISTANT PROFESSOR,

SCHOOL OF INTERNATIONAL RELATION & POLITICS,

CHAIRMAN,CENTRE FOR WEST ASIAN STUDIES,MG UNIVERSITY)

On 15th September 2021

@5pm

via google meet

Ms.Mary Philip
(HoD)

Dr.Sr.Catherine C.M.C
(Principal)

Ms. Sayiba
(Association Secretary)

Ms.Amilsha A.A
(Webinar co-ordinator)

National Webinar

Theme:-constitutional morality,caste discriminations and social inclusion

The Department of Political Science has conducted a national webinar on the topic 'constitutional morlaity,caste discriminations,social inclusion' on 15th September 2021 @5pm via Google meet.There were 98 participants.

The program was great success.it was cordinated by Ms.Mary Philip(Head of the Department),Ms.Ushus Balu and Amilsha A.A was the joint coordinator.





REC



Bijulal



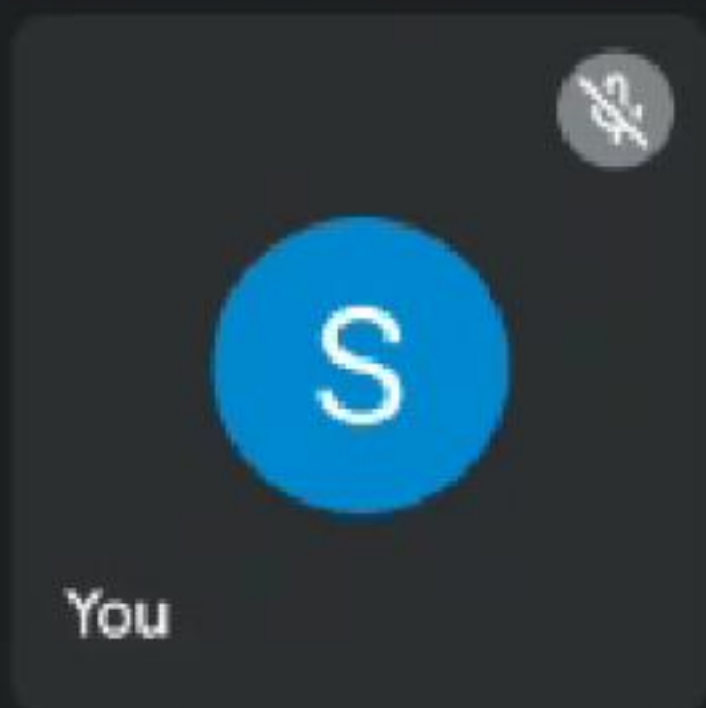
Amilsha



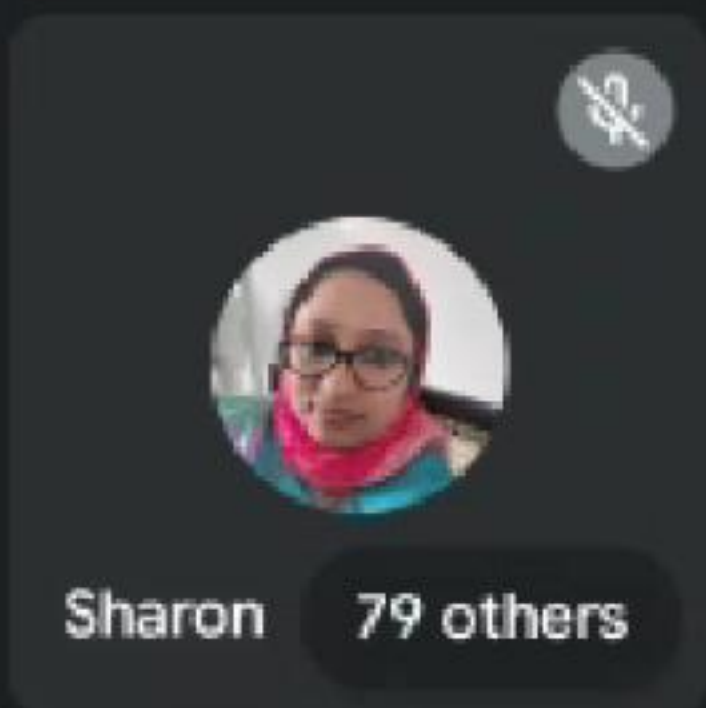
Principal



[FE] Niksa



You



Sharon

79 others





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DEPARTMENT OF POLITICAL SCIENCE

CORDIALLY INVITES ALL FOR THE

Association Inauguration

TOPIC:-INDIAN CONSTITUTION & WOMEN

EMPOWERMENT:EXPECTATION & REALITY

On 6th August 2021 @8.30 am

via Google meet

Resource Person



Ms. Anuja J

Associate professor & HoD

Dept. of Political Science

Vimala College, Thrissur

Association Inauguration-6th August 2021

The Department of Political Science Association Inauguration was held on 6th August 2021 at 8.30 am via google meet. There were lots of students attend the webinar. Ms Anuja (Associate professor, HoD Dept of Political Science, Vimala college, Thrissur) was the resource person. She talks on the topic Indian Constitution & women empowerment: expectations & reality.

The program begins with prayer sung by Shifana Nowshad. The welcome speech was done by Ms. Mary Philip (HoD, Dept. Of Political Science, Carmel college, Mala), presidential address by Dr. Sr. Catherine C.M.C (Principal, Carmel college, Mala), inaugural address and talk by Ms. Anuja J, vote of thanks by sayiba saleem (Association secretary).

The program was great success. Ms. Ushus Balu and Ms. Amilsha A.A were the Joint co-ordinator





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Department Of POLITICAL SCIENCE

Organizing a

WEBINAR

On the topic:- Preamble to the Constitution of India

THE CONSTITUTION OF INDIA PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **'[SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC]** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity and to promote among them all;

FRATERNITY assuring the dignity of the individual and the 'unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949 do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

1. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 2 for "Sovereign Democratic Republic" (w.e.f. 3.1.1977)
2. Subs. by the Constitution (Forty-second Amendment) Act, 1976, Sec. 2 for "Unity of the Nation" (w.e.f. 3.1.1977)

Resource Person:-

Dr. PRIYESH C.U

Assistant Professor

Research Department Of Political Science

Maharaja's College, Ernakulam

On 7th July 2021

@ 10.30 a.m

via Google meet

Ms. Mary Philip
HoD

Department of Political Science

Ms. Amilsha

Webinar Co-Ordinator

Dr. Sr. Catherine CMC
Principal

Carmel College, Mala



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*Probhodha Trust, Kochi in association with
Gandhi Peace Foundation, Kochi
Department of Political Science, NSS College, Ottappalam
Department of Political Science, Carmel College, Mala
Department of Economics, MES Asmabi College, Kodungallur &
Department of Economics, SH College, Thevara. Ernakulam.*

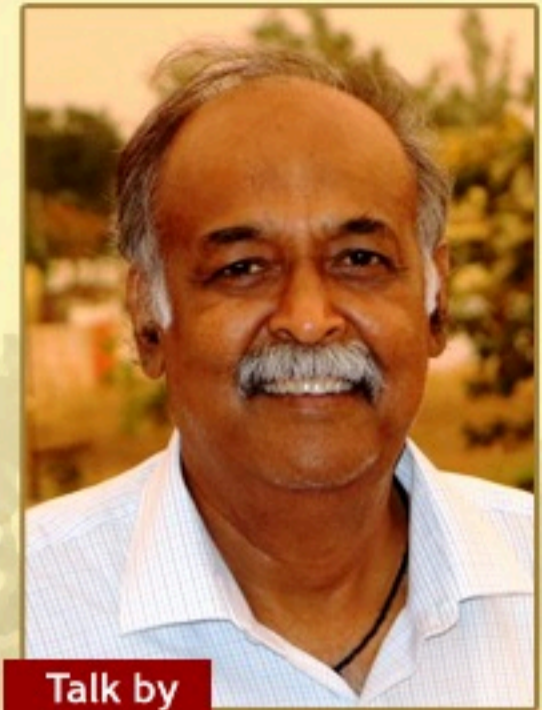
Organises

National Webinar on

GANDHIAN ECONOMICS

**10th August 2021
Tuesday @ 7 pm**

Google meet



Talk by

Dr. Ramesh Sharan

Economist and Former
Vice Chancellor of
Vinobhabhave University,
Hazaaribaagh, Jharkhand.

■ Welcome Address:

Dr. M.S. Madhusudhanan Nair

HoD, Dept. of Economics
SH College, Thevara. Kochi.

■ Presidential address:

Adv. Dr. K. Radhakrishnan Nair,

Judge Consumer Court, Trichur (Retd),
Advisory Board Member,
Probhodha Trust, Kochi.

■ Felicitations.

Adv. V. M. Michael

Secretary, Gandhi Peace foundation,
Kochi.

Dr. Vijesh T P, Asst. Prof & HoD

Dept. of Political Science,
NSS College, Ottappalam.

Mrs. Mary Philip, Asst. Prof & HoD

Dept. of political science,
Carmel College, Mala.

Mrs. Jeena P M

HoD - PG Dept. of Economcs.
MES Asmabi College, Kodungallur.

■ Vote of Thanks:

Sri. Naveen Kumar D.D.

Secretary, Probhodha Trust, Kochi.

National Webinar

Theme:-Gandhian Economic

The Department of Political Science has conducted a national webinar on the topic 'Gandhian Economic' on 10th September 2021 @7pm via Google meet. There were many participants. Dr. Ramesh Sharan was the resource person.

The program was great success. It was coordinated by Ms. Mary Philip (Head of the Department), Ms. Ushus Balu and Amilsha A.A. was the joint coordinator.



Webinar

Topic:- Preamble to the Constitution of India.

The Preamble to the Constitution of India is guidelines to guide people of the nation, to present the principles of the Constitution, to indicate the source from which the document derives its authority, and meaning. It reflects the hopes and aspirations of the people.

The Department of Political Science conducted a webinar on the topic "Preamble to the Constitution of India" on 7th July 2021 at 10:30 AM, the platform used was Google meet. The resource person was Dr.Priyesh C.U (Assistant Professor Research Department of Political Science,Maharaja's College,Ernakulam).

The webinar began with prayer song by Shifana Nowshad of (2nd Ba political Science), Fredeena Saji (3rd Ba political science) welcome the gathering.

There are lot of participants .The program was concluded by vote of thanks by Sayiba (2nd BA political science) and the program was anchored by Aisha Noushad(2nd Ba Political Science).

The webinar was very successful and valuable. It was coordinated by Ms. Mary Philip(Head of the Department), Ms. Ushus Balu and Ms. Amilsha A.A were the joint coordinators.

