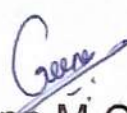
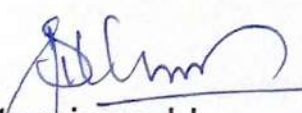


## CERTIFICATE

This is to certify that the project report entitled "Green Chemistry Experiments" is a bonafide record of the work carried out by Ms.Bency Benny,Ms.Nidhi Mol. Ajith,Ms.Vrindha Vinoj under my guidance in the Department of Chemistry, Alphonsa College, Pala during her B.Sc Degree Course in partial fulfillment of the requirements of the B.Sc Degree in the Faculty of Science of Mahatma Gandhi University, Kottayam and that no part of this has been presented before for any other degree

  
Ms. Geena M George  
Supervising Teacher


  
Countersigned by,  
Dr. Sr. Jilly James  
Head, Department of Chemistry  
Alphonsa College, Pala

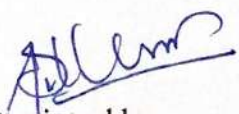
Pala

21.3.2021

## CERTIFICATE

This is to certify that the project report entitled "Isolation of caffeine from coffee and tea samples" is an authentic record of the project work carried out by Ms.Alphy Jose,Ms.Gayathri G,Ms.Mariya Shyju in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.

  
Ms. Geena M George  
Supervising Teacher

  
Countersigned by,  
**Dr.Sr.Jilly James**  
Head, Department of Chemistry  
Alphonsa College, Pala

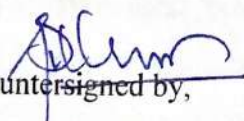
Pala  
30.03.2021

## CERTIFICATE

This is to certify that the project report entitled "**Biological Synthesis of Zinc Oxide Nanoparticles using *Catharanthus Roseus* Leaf Extract And its Antibacterial Studies**" is an authentic record of the project work carried out by **Mereena P Jayan, Shonima Baby and Treesa Sani** in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.



Dr. Sr. Sheena Varghese  
Supervising Teacher



Countersigned by,

Dr. Sr. Jilly James

Head, Department of Chemistry

Alphonsa College, Pala

Pala

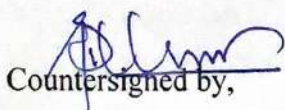
27 March 2021

## CERTIFICATE

This is to certify that the project report entitled "**Green Synthesis of Cobalt Nanoparticles using Asparagus Racemosus Root Extract and Evaluation of Antifungal Activity**" is an authentic record of the project work carried out by **Anu Thomas, Dhilna Sabu and Mariya Sharon Sebastian** in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.



Dr. Sr. Sheena Varghese  
Supervising Teacher



Countersigned by,


Dr. Sr. Jilly James  
Head, Department of Chemistry  
Alphonsa College, Pala

Pala

27 March 2021

## CERTIFICATE

This is to certify that the project report entitled "A STUDY OF INFLUENCE OF MAGNESIUM ION ON THE STABILITY OF NATURAL RUBBER LATEX" is an authentic record of the project work carried out by AMALU PAUL, ARUNDHATHI UNNIKRISHNAN, SARI SHAJI in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.

  
Ms. Diana Elizabeth

Jose

Assistant

Professor,

Department of Chemistry,  
Alphonsa College, Pala.

  
Countersigned by,

Dr. Sr. Jilly James

Head, Department of Chemistry,

Alphonsa College, Pala.

Pala

28-03-2021

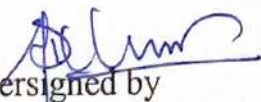
## CERTIFICATE

This is to certify that the project report entitled 'A STUDY IN DETERMINING THE QUANTITY OF CALCIUM CARBONATE IN VARIOUS BRANDED TOOTHPASTES' is an authentic record of the project work carried out by **KRIPA JOSHY, LIZ B. JOSE, TESSA MATHEW** in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.



**Ms. Diana Elizabeth Jose**

Assistant Professor,  
Department of Chemistry,  
Alphonsa College, Pala.



Countersigned by

**Dr. Sr. Jilly James**

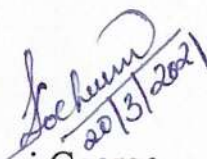
Head, Department of Chemistry,  
Alphonsa College, Pala.


Pala

28/03/2021

## CERTIFICATE

This is to certify that the project report entitled **“Extraction and uv-visible characterisation of curcumin”** is an authentic record of the project work carried out together by **Ms. Arya Vijayan and Kavya Rajesh** in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.

  
Dr. Kochurani George  
Assistant Professor,  
Department of Chemistry,  
Alphonsa College, Pala.

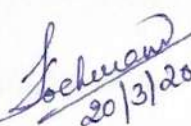
Countersigned by,  
Dr. Sr.Jilly James,   
Head, Department of Chemistry,  
Alphonsa College, Pala.

Pala

19 March 2021

## CERTIFICATE

This is to certify that the project report entitled “Comparative study of curcumin content in commercial and domestic turmeric samples” is an authentic record of the project work carried out together by Ms. Alphy Jose, Ms. Athira K and Ms. Renjithamol in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.

  
20/3/2021  
Dr. Kochurani George

Assistant Professor,  
Department of Chemistry,  
Alphonsa College, Pala.

Countersigned by,

Dr. Sr. Jilly James,

Head, Department of Chemistry,

Alphonsa College, Pala.

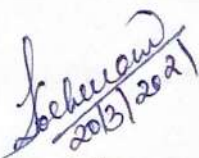
Pala

19 March 2021



## CERTIFICATE

This is to certify that the project report entitled "*Determination of Lycopene content in various fruits*" is an authentic record of the project work carried out together by Ms. Arsha A P, Joselin Mary Jose and Riya Sony in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2020-2021.

  
Dr. Kochurani George  
Assistant Professor,  
Department of Chemistry,  
Alphonsa College, Pala.

Countersigned by,

Dr. Sr. Jilly James

Head, Department of Chemistry,

Alphonsa College, Pala.

Pala

19 March 2021

## CERTIFICATE

This is to certify that the project report entitled "*Low Cost and Fast Production of Nanosilica from Rice Husk Ash*" is an authentic record of the project work carried out by **Kum. Asha Jiji and Kum. Neeraja M Kaimal** in partial fulfillment of the project work, for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University, under my guidance and supervision during 2020-2021.

  
**Dr. Sr. Jilly James**

Head, Department of Chemistry,

Alphonsa College, Pala.

## CERTIFICATE

This is to certify that the project report entitled "*Determination of Dirt Content, Ash Content, Volatile Matter, Nitrogen Content and Plasticity Retention Index of Crumb Rubber*" is an authentic record of the project work carried out by **Kum Aparna Mohan, Jayalakshmi K S and Rani Joseph** in partial fulfillment of the project work, for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University, under my guidance and supervision during 2020-2021.

  
**Dr. Sr. Jilly James**

Head, Department of Chemistry,

Alphonsa College, Pala.

## CERTIFICATE

This is to certify that the project report entitled "*Adsorption of Methylene Blue Dye using Jack-Fruit Leaf Powder*" is an authentic record of the project work carried out by **Kum. Ajeshamol T, Anju Maria Reju and Devika Aravindan**, in partial fulfillment of the project work, for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University, under my guidance and supervision during 2020-2021.

  
**Dr. Sr. Jilly James**

Head, Department of Chemistry,

Alphonsa College, Pala.