

### ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL – 637 002

(Re-Accredited with 'B' Grade by NAAC & Affiliated to Periyar University, Salem)

# CRITERION I 1. CURRICULAR ASPECTS

### 1.3 CURRICULUM ENRICHMENT

1.3.2 Number of students undertaking project work/field work/internship

2017-2018

முனைவர் து.இரவிக்குமார்.,எம்.ஏ.,எம்.ஃபில்.,பி.எச்.டி.,டி.சி.ஏ.,சி.ஜி.டி.,

தமிழ் உதவிப் பேராசிரியர்,

தமிழ்த்துறை.

அறிஞர் அண்ணா அரசு கலைக்கல்லூரி,

நாமக்கல் 637 002.

"சமுதாயப் பார்வையில் முகவியனின் மவுனவேட்கை" என்னும் தலைப்பில் ஆய்வாளர் து.தீபா (பதிவு எண் 16PTA1046) அவர்களால் அளிக்கப் பெற்றுள்ள இந்த ஆய்வேடு பெரியார் பல்கலைக்கழகத் தமிழ் முதுகலைப்பட்டப் பேற்றிற்காக 2016-2018ஆம் கல்வி ஆண்டில் அறிஞர் அண்ணா அரசு கலைக்கல்லூரித் தமிழ்த்துறையில் ஆய்வாளரின் சொந்த முயற்சியால் உருவாக்கப்பட்டது. இவ்வாய்வேடு வேறு எந்தப் பட்டப்பேற்றிற்காகவும் எந்தப் பல்கலைக்கழகத்திற்கும் வழங்கப் பெறவில்லை என்று சான்றளிக்கிறேன்.

இ. (^) ~~~~~) துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் அறிஞர் அண்ணா கலைக்கல்லூரி நாமக்கல் — 637 002.

முனைவர். து. இரவிக்குமார் தமிழ் உதவிப் பேராசிரியர், (முனைவர் து இரவிக்குமாற் அற்கு அன்னர் அரசு கைக்க்க்கரி,

நாமக்கல் — 637 002.

இடம் : நாமக்கல்

நாள் 11.04.18

முனைவர் அ.சின்னதுரை எம்.ஏ. எம். பில் பிஎச்.டி.,

தமிழ் உதவிப் பேராசிரியர்

தமிழ்த்துறை

அறிஞர் அண்ணா அரசு கலைக்கல்லூரி

நாமக்கல் - 637 002.

'சமூகவியல் நோக்கில் ஒரு வெள்ளாட்டின் கதை' என்னும் தலைப்பில் முதுகலைத் தமிழ் (எம்.ஏ) பட்டத்தின் பகுதி நிறைவாக அளிக்கப்பெறும் இவ்வாய்வேடு அறிஞர் அண்ணா அரசு கலைக்கல்லூரியில் 2016-2018 ஆம் கல்வியாண்டில் பயின்ற மாணவன் செ.தயாநிதியின் (பதிவு எண் 16PTA1047) சொந்த முயற்சியால் உருவானது என்றும் இதற்குமுன் வேறு எந்தப் ஆராய்ச்சிக்கும் அளிக்கப்படவில்லை என்றும் சான்றளிக்கிறேன்.

**ுற்கள**்ளார். நோக்கில் ஒரு நெருவாடங்கு என்ற வந்தும் சுகைப்பில்

். இரு நிற்ற த்தலைவர் தமிழ்த்துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் அ**றிருர் அன்னா கலைக்கல்லூ**ரி நாமக்கல் – 637 002. முக்கியார்ன். சின்னதுரை தமிழ் உதவிப்போசிரியர் அறிஞர் அன்னா அரசு கலைக்கல்லூ

இடம் :

நாள் 1:), 7,18

அரசுபரமேசுவரன் எம்.ஏ., எம்.ஏ., எம்ஃபில்., பிஎச்.டி உதவிப் பேராசிரியர், தமிழ்த்துறை, அறிஞர் அண்ணா அரசு கலைக்கல்லூரி, நாமக்கல்-637 002.

"சமூகவியல் நோக்கில் கள்ளிக்காட்டு இதிகாசம்" என்னும் தலைப்பில் முதுகலைத் தமிழ் (எம்.ஏ) பட்டத்தின் பகுதி நிறைவாக அளிக்கப்பெறும் இவ்வாய்வேடு நாமக்கல் அறிஞர் அண்ணா அரசு கலைக்கல்லூரி தமிழ்த்துறையில் 2016-2018 ஆம் கல்வியாண்டில் பயிலும் மாணவர் தடமணிகண்டன் அவர்களின் சொந்த முயற்சியால் உருவானது என்றும் இதற்கு முன் வேறு எந்த ஆராய்ச்சிக்கும் இவ்வாய்வேடு அளிக்கப்படவில்லை என்றும் சான்றளிக்கிறேன்.

தமிழ்த் துறைத்தலைவர்

நெறியாளர்

(முனைவர்.அரசுப்ரமேசுவரன்)

பேதாசிரியர். டாக்டர் அரசுபரமேசுவரன் M.A.,M.A.,M.Phil.,PG.DPM.,Ph.D., உதவிப்பேராசிரியர் -- தமிழ்த்துறை அறிஞர் அண்ணா அரசு கலைக்கல்லூரி

நாமக்கல் – 637 002

இடம்: நாமக்கல்

நாள்: 1) ் 🖰 ் 🎉

அரசுபரமேசுவரன் எம்.ஏ., எம்.ஏ., எம்ஃபில்., பிஎச்.டி உதவிப் பேராசிரியர், தமிழ்த்துறை, அறிஞர் அண்ணா அரசு கலைக்கல்லூரி, நாமக்கல்-637 002.

"சமூகவியல் நோக்கில் கள்ளிக்காட்டு இதிகாசம்" என்னும் தலைப்பில் முதுகலைத் தமிழ் (எம்.ஏ) பட்டத்தின் பகுதி நிறைவாக அளிக்கப்பெறும் இவ்வாய்வேடு நாமக்கல் அறிஞர் அண்ணா அரசு கலைக்கல்லூரி தமிழ்த்துறையில் 2016-2018 ஆம் கல்வியாண்டில் பயிலும் மாணவர் தடிணிகண்டன் அவர்களின் சொந்த முயற்சியால் உருவானது என்றும் இதற்கு முன் வேறு எந்த ஆராய்ச்சிக்கும் இவ்வாய்வேடு அளிக்கப்படவில்லை என்றும் சான்றளிக்கிறேன்.

தமிழ்த் துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் **அறிஞர் அண்ணா கலைக்கல்லா**ரி நாமக்கல் – 637 002.

இடம்: நாமக்கல்

நாள்: 11,4,18

நெறியாள**ர்** இல்லி எ

(முனைவர். அரசுபர்பேசுவரன்) வறாசிரிவர். டாக்டர் அரசுபரமேசுவரன் M.A.,M.Phil.,PG.DPM.,Ph.D.,

உதவிப்பேராசிரியர் - தமிழ்த்துறை அறிஞர் அண்ணா அரசு கலைக்கல்லூரி நூழக்கல் - 637 002

முனைவர் மு.நடராஜன்.,எம்.ஏ.,எம்ஃபில்.,பிஎச்.டி., தமிழ்த்துறைத் தலைவர், தமிழ்த்துறை, அறிஞர் அண்ணா அரசு கலைக்கல்லூரி, நாமக்கல் 637 002.

\*சமூகவியல் நோக்கில் தொடுவானம்\* என்னும் தலைப்பில் ஆய்வாளர் சா.மோகனப்பிரியா (பதிவு எண் 16PTA1049) அவர்களால் அளிக்கப் பெற்றுள்ள இந்த ஆய்வேடு பெரியார் பல்கலைக்கழகத் தமிழ் முதுகலைப் பட்டப்பேற்றிற்காக 2016-2018ஆம் கல்வி ஆண்டில் அறிஞர் அண்ணா அரசு கலைக்கல்லூரித் தமிழ்த்துறையில் ஆய்வாளரின் சொந்த முயற்சியால் உருவாக்கப்பட்டது. இவ்வாய்வேடு வேறு எந்தப் பட்டப்பேற்றிற்காகவும் எந்தப் பல்கலைக்கழகத்திற்கும் வழங்கப் பெறவில்லை என்று சான்றளிக்கிறேன்.

துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் அறிஞர் அண்ணா கலைக்கல்லூரி நாமக்கல் – 637 002, நெறியாளர்

(முனைவர் மு.நடராஜன்) தமிழ்த்துறைத் தலைவர்

தமழ்த்துவற்த தல்கையில் இரி இறிஞர் அண்ணா கலைக்கல்லூரி நாமக்கல் – 637 002.

இடம் : நாமக்கல்

Brief : 11. 4.18

முனைவர் பிகந்தசாமி உதவிப்பேராசிரியர்

தமிழ்த்துறை,

அறிஞர் அண்ணா அரசு கலைக்கல்லூரி,

நாமக்கல் 637 002.

\*கவிஞர் நா.முத்துகுமாரின் பட்டாம்பூச்சி விற்பவனில் சமூகம்**" என்**னும் தலைப்பில் ஆய்வாளர் மு.சுரேந்திரன் புதிவு எண் 16PTA1050) அவர்களால் அளிக்கப் ஆய்வேடு பெரியார் பல்கலைக்கழகத் தமிழ் முதுகலைப் பட்டப்பேற்றிற்காக 2016-2018ஆம் கல்வி ஆண்டில் அறிஞர் அண்ணா அரசு கலைக்கல்லூரித் **தமிழ்த்துறையில்** ஆய்வாளரின் சொந்த முயற்சியால் உருவாக்கப்பட்டது. இவ்வாப்வேடு வேறு எந்தப் பட்டப்பேற்றிற்காகவும் எந்தப் பல்கலைக்கழகத்திற்கும் வழங்கப் பெறவில்லை என்று சான்றளிக்கிறேன்.

துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் **அநிஞர் அன்னா கலைக்கல்லூரி** நாமக்கல் – 637 002.

இடம் : நாமக்கல் நாள் | ] . பு . 1 & Complement 11.09.12

(முனைவர்.பி.கந்தசாமி)

முனைவர். பி. கந்தனாரி என்னன் அவிலிலிருக்கு. உதவில் பேராசிலியுள் அவில் கண்ணிக்கல்லூரி, அறிஞர் அண்ணா அவில் கண்ணிக்கல்லூரி, நாயக்கல் – 037 002

முனைவர் கூஅன்பரசன், எம்.,ஏ.,எம்.எட்.,எம்ஃபில்.,பி.எச்.டி., உதவிப் பேராசிரியர், தமிழ்த்துறை, அறிஞர் அண்ணா அரசு கலைக்கல்லூரி, நாமக்கல்-637 002.

"சிறுபாணாற்றுப்படை காட்டும் வாழ்வியல் கூறுகள்" என்னும் தலைப்பில் முதுகலைத் தமிழ் (எம்.ஏ) பட்டத்தின் பகுதி நிறைவாக அளிக்கப்பெறும் இவ்வாய்வேடு நாமக்கல் அறிஞர் அண்ணா அரசு கலைக்கல்லூரி தமிழ்த்துறையில் 2016-2018 ஆம் கல்வியாண்டில் பயிலும் மாணவர் இ.விஜய்குமார் அவர்களின் சொந்த முயற்சியால் உருவானது என்றும் இதற்கு முன் வேறு எந்த ஆராய்ச்சிக்கும் இவ்வாய்வேடு அளிக்கப்படவில்லை என்றும் சான்றளிக்கிறேன்.

தமிழ்த் துறைத்தலைவர்

தமிழ்த்துறைத் தலைவர் அ**நிஞர் அன்னா கலைக்கல்லூரி** நாமக்கல் – 637 002.

இடம்: நாமக்கல்

நாள்: 10.04.2018

 நெறியாளர் \ ௦. ௦ டி . 2≥டு

(முனைவர்.க.அன்பரசன்) முனைவா. க. அன்பரசன், உதவிப் பேராசிரியர் தமிழ்த்துறை அறிஞர் அண்ணா அரசு கலைக்கல்லூரி நாமக்கல் – 637,002

This is to certify that the dissertation entitled "A STUDY OFHUMAN DESTINES IN THOMAS HARDY'S FAR FROM THE MADDING CROWD" submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Mr. RAJKAMAL during the period of 2016-2018 of his study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

HOD

HOD OF ENGLISH

ARIGNAR ANNA GOVT. ARTS COLLEGE

NAMAKKAL - 637002

SUPERVISOR

Dr. K. RAMACHANDRAN

Assistant Prof. of English Arignar Anna Govt. Arts College

Think

Namakkal - 637002.

EXTERNAL EXAMINER

P. THIRUNAVUKKARASU M.A.,M.Phil.,
Asst. Prof of English
Subramaniam Arts & Science College,
Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A CRITICAL STUDY OF R. K. NARAYAN'S WAITNG FOR THE MAHATMA", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Mr. R. SAKTHI during the period 2016-2018 of his study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

HOD OF ENGLISH
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NAMAKKAL - 637002

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Assistant Prof. of English
Arignar Anna Govt. Arts College
Namakkal - 637002.

EXTERNAL EXAMINER

P. THIRUNAVUKKARASU M.A..M.Phil... Asst. Prof of English Supermaniam Arts & Science College, Wollanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF QUEST FOR SPIRITUAL ENLIGHTENMENT IN HERMANN HESSE'S SIDDHARTHA", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Mr. S. SANDEEPKUMAR during the period 2016-2018 of his study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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P. THIRUNAVUKKARASU M.A..M.Phil., Asst. Prof of English Subramaniam Arts & Science College, Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF HUMOUR AND IRONY IN R.K NARAYAN'S THE GUIDE", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Mr. C. SELLAMUTHU during the period of 2016-2018 of his study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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Dr. K. RAMACHANDRAN Assistant Prof. of English

Arignar Anna Govt. Arts College

Namakkal - 637002.

P. THIRUNAVUKKARASU M.A.M.Phil., - Asst. Prof of English Subramaniam Arts & Science College. Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF LOVE AND SELF-SEARCH IN ANITA DESAI'S CRY THE PEACOCK", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Mr. M. SURESH during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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P. THIRUNAVUKKARASU M.A.,M.Phil., Asst. Prof of English S. Samaniam Arts & Science Collage, ... unanur, Namakkai (Ot.)

This is to certify that the dissertation entitled "EXPOSURE OF REALITY AND APPEARANCE IN OLIVER GOLDSMITH'S SHE STOOPS TO CONQUER", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. R. BRUNTHA during 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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This is to certify that the dissertation entitled "EXISTENTIALISM IN ANITA DESAI'S FIRE ON THE MOUNTAIN", submitted to the Periyar University, partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Miss V. KAYALVIZHI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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Asst. Prof of English
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Lunanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "THEME OF HUMAN RELATIONS IN JOHN STEINBECK'S OF MICE AND MEN", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. A. KIRUPALINI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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NAMAKKAL - 63700"

SUPERVISOR Dr. K. RAMACHANDRAN

Assistant Prof. of English

Arignar Anna Govt. Arts College Namakkal - 637002.

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P. THIRUNAVUKKARASU M.A.,M.Phil., 4sst. Prof of English 2m Arts & Science College, VII The Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF GENETICALLY ENGINEERED HYBRID ANIMALS IN MARGARET ATWOOD'S ORYX AND CRAKE", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. P. MALATHI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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NAMAKKAL - 637002

Eta SOS vabara SUPERVISOR

Dr. S. KIRUBHAKARAN, M.A., M.Phil., Ph.D., Assistant Professor of English Arignar Anna Government Arts College NAMAKKAL-637 002.

EXTERNAL EXAMINER

P. THIRUNAVUKKARASU M.A..M.Phil.,
Asst. Prof of English
Subramaniam Arts & Science College,
Mohanur, Namakkai (Dt.)

This is to certify that the dissertation entitled "A STUDY OF ELEMENT OF HISTORICISM IN KUSHWANT SINGH'S TRAIN TO PAKISTAN", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. T. NITHYAJOTHI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any DEGREE/Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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P. THIRUNAVUKKARASU M.A.,M.Phil.,
Asst. Prof of English
Subramaniam Arts & Science College,
Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "AN IMPERIALISTIC STUDY OF AMITAV GHOSH'S THE GLASS PALACE", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. R. SANGEETHA during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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**NAMAKKAL - 637002** 

Edn. Dajungami

Dr. S. KIRUBHAKARAH, M.A., M.Phil., Ph.D., Assistant Professor of English Arignar Anna Government Arts College

NAMAKKAL-637 002.

P. THIRUNAVUKKARASU M.A..M.Phil., Asst. Prof of English Subramaniam Arts & Science College, Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF LOSS OF CIVILIZATION IN WILLIAM GOLDING'S LORD OF THE FLIES", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by

Ms. G. SRIVIDHYA during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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NAMAKKAL - 537002

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P. THIRUNAVUKKARASU M.A.M.Phil., Asst. Prof of English Subramaniam Arts & Science College, Mohanur, Namakkal (Dt.)

This is to certify that the dissertation entitled "A STUDY OF SPIRITUALISM IN HERMANN HESSE'S SIDDHARTHA", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. M. SUMATHI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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NAMAKKAL - 637002

J. Throng SUPERVISOR

Dr. K. RAMACHANDRAN Assistant Prof. of English Arignar Anna Govt. Arts College

Namakkal - 637002.

EXTERNAL EXAMINER

P. THIRUNAVUKKARASU M.A.M.Phil.,

Asst Protof English

Subramanian . . . . . College,

Monthan Namahan well

This is to certify that the dissertation entitled "POLITICS AND RELIGION IN ROHINTON MISTRY'S SUCH A LONG JOURNEY", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. S. VASANTHI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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SUPERVISOR

Dr. K. RAMACHANDRAN

Assistant Prof. of English

Arignar Anna Govt. Arts College

Namakkal - 637002.

P. THIRUNAVUKKARASU M.A., M.Phil.,
Asst. Prof of English
Asst. Prof of English
Subramaniam Arts & Science College,
Mohanur, Namakkar (Dt.)

This is to certify that the dissertation entitled "A STUDY ON EXPLOITATION OF WOMEN IN GIRISH KARNAD'S NAGA-MANDALA", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER ARTS IN ENGLISH is a record of original research work done by Ms. P. VANESWARI during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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P. THIRUNAVUKKARASU M.A., M.Phil., Asst. Prof of English Subramaniam Arts & Science College,

Mohanur, Namakkai (Dt.)

This is to certify that the dissertation entitled "PORTRAYAL OF DISTRUST AND LOVE IN JOHN OSBORNE'S LOOK BACK IN ANGER", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Ms. S. VINITHA during the period 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any university.

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Dr. S. KIRUBHAKARAN, M.A., M.Phil., Ph.D., Assistant Professor of English Arignar Anna Government Arts College NAMAKKAL-637 002.

P. THIRUNAVUKKARASU M.A. M.Phil. Asst. Prof of English Suuramaniam Arts & Science College, Mohanur, Namakkal (DL)

This is to certify that the dissertation entitled "IMMIGRANTS AND THE PERSPECTIVE OF FAMILIAL RELATIONSHIPS IN JHUMPA LAHIRI'S UNACCUSTOMED EARTH", submitted to the Periyar University, in partial fulfilment of the requirements for the award of the degree of MASTER OF ARTS IN ENGLISH is a record of original research work done by Miss. M. INTHIRANI during the period of 2016-2018 of her study under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree/ Diploma/ Associate ship/Fellowship or other similar title to any candidate of any university.

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J. Throng

Dr. K. RAMACHANDRAN Assistant Prof. of English

Arignar Anna Govt. Arts College

Namakkal - 637002.

P. THIRUNAVUKKARASU M.A., M.Phil., Asst. Prof of English miam Arts & Science College.

anur. Namakkal (Dt.)

I, Dr.M.MADHAVAN M.A.,M.Phil.,Ph.D hereby declare that the Project work entitled, "A STUDY ON PERCECPTION OF FMCG SELLERS ON GST WITH SPECIAL REFERENCE TO RETAILERS IN NAMAKKAL TOWN" is the bonofide research work carried out by A.AMARESAN (Reg. No. 16PEC1001) and submitted to the department of Economics, Arignar Anna Government Arts College, Namakkal in partial fulfillment of the requirements for the award of the Degree of MASTER OF ARTS in Economics during the period form 2017-2018 under my guidance and this work has not formed the basis for the award of any degree, diploma, associateship, fellowship, or titles in this or any other University or other similar institutions of higher learning.

xaminer

Signature of the Guide

Signature of the Guide MADHAVAN, M.A., M.Phil., Ph.D.

MADHAVAN, M.A., M.A., MARINE MADHAVAN, M.A., M.A

Nich

Principal
PRINCIPAL
Aningnar Anna Government

Arts College Namakkal-637 001.

Head of the Department 271/ துறைத் தலைவர், முதுகலை & பொருளியல் ஆய்வுத்துறை, அறிஞர் அண்ணா அரசு கலைக் கல்லூரி, அறிஞர் அண்ணா அரசு கலைக் கல்லூரி,

I, Dr. T. MARICHAMY, MA, M.Phil, B.Ed., PGDCA, Ph.D., hereby declare that the Project work entitled, "AN ECONOMIC STUDY OF INFLUNCING FACTORS TO SELECT MOBILE PHONES AMONG COLLEGE STUDENTS IN NAMAKKAL DISTRICT" is the bonofide research work carried out by R.KARTHIK (Reg.No. 16PEC1002) and submitted to the department of Economics, Arignar Anna Government Arts College, Namakkal in partial fulfillment of the requirements for the award of the Degree of MASTER OF ARTS in Economics during the period form 2017 - 2018 under my guidance and this work has not formed the basis for the award of any degree, diploma, accoicateship, fellowship, or titles in this or any other University or other similar institutions of higher learning.

Signature of the Guide

Head of the Department முதுக்கை & பொருளியல் ஆய்வுத்துறை, வுறிருர் அண்ணா அரசு கலைக் கல்லூரி,

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PRINCIPAL
Aringnar Anna Government
Arts College
Namaikkal-637 001

External Examiner

Dr.M.KUMARAVELU. M.A., M.Phil., Ph.D., Associate Professor & Head PG & Research Department of Economics Arignar Anna Govt. Arts College Namakkal -636 002.

#### CERTIFICATE

This is to certify that the project entitled "A STUDY ON CONSUMER BEHAVIOUR ON ONLINE PRODUCT MARKETING IN NAMAKKAL DISTRICT ", submitted to Arignar Anna Govt. Arts College, Namakkal in partial fulfillment of the requirements for the award of Master of Arts Degree in Economics, is a record of bonafide research work carried out by S.MOORTHI under my supervision and guidance and that no part of the project has previously formed part of any project or publication for the award of any other degree, diploma, fellowship of similar titles.

Dr.M. Kumaravelu, M.A.,M.Phil.,Ph.D Associate Professor in Economics, Arignar Anna Govt. Arts College,

Namakkal - 637 002.

Principal PRINCIPAL

Aringnar Anna Government

Arts College Namakkal-637 001.

**ERMANN** - 637 002.

Dr.M.KUMARAVELU. M.A., M.Phil., Ph.D., Associate Professor PG & Research Department of Economics Arignar Anna Govt. Arts College Namakkal -636 002.

#### **CERTIFICATE**

This is to certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION ON HEALTH DRINKS WITH REFERNCE TO HORLICKS IN NAMAKKAL DISTRICT", submitted to Arignar Anna Govt. Arts College, Namakkal in partial fulfillment of the requirements for the award of MASTER OF ARTS Degree in Economics, is a record of bonafide research work carried out by M.MUTHUSAMY, under my supervision and guidance and that no part of the project has previously formed part of any project or publication for the award of any other degree, diploma, fellowship of similar titles.

Head of the Department /// பூர் துறைத் தலைவர், முதுகலை & பொருளியல் ஆய்வுத்துறை, அறிஞர் அன்னா அரசு கலைக் கல்லூரி,

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Dr.M. Kumaravelu, M.A.M.Phil.,Ph.D.,
Associate Professor in Economics,
Arignar Anna Govt. Arts College,
Namakkal - 637 002.

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Arts College
Namakkal-637 001.

External Examiner

I, Dr. A.SAKTHIVEL, M.A, M.Phil, Ph.D, hereby certify that the Project work entitled, "A STUDY ON MARKETING PROBLEMS FACED BY FARMERS WITH SPECIAL REFERENCE TO DRY LAND CROPS IN ELACHIPALAYAM UNION, NAMAKKAL DISTRICT." is the bonafide research work carried out by G.SILAMBARASAN (Reg. no.16PEC1006) and submitted to the department of Economics, Arignar Anna Government Arts college, Namakkal in partial fulfillment of the requirements for the award of the Degree of MASTER OF ARTS IN ECONOMICS during the period form 2017 - 2018 under my guidance and this work has not formed the basis for the award of any degree, diploma, associate ship, fellowship, or titles in this or any other University or other similar institutions of higher learning.

Signature of the Guide

lead oi ஆட்டிற்ற இன்றப்பி சர் பிரி பிரி இ முதுக்கை & பொருளியல் ஆய்வுத்துறை, அறிஞர் அண்ணா அரசு கலைக் கல்லூரி, நாமக்கல் - 637 002,

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Arts College
Namakkal-637 001.

External Examiner"\4

This is to certify that the project entitled submitted "A STUDY ON BRAND PREFERENCE OF MOBILE PHONES IN NAMAKKAL TOWN" is a record of bonafide research work carried out by Mr.R.Balaji Register No 15UBA1354 under my supervision and guidance during the academic year 2017 - 2018 in partial fulfillment of the requirements for the award of the Degree of Bachelor of Business Administration and the work in an original one and has not formed basis for the award of any other Degree, Diploma, Associateship, Fellowship of similar titles.

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Internal Examiner

This is certify that the project entitled "A STUDY ON PUBLIC AWARENESS TOWARDS HELMET WITH REFERENCE TO NAMAKKAL CITY" is a bonafide work carried out by T.KANGAMUTHU ,(Reg. No: 15UBA1357)under my supervision and guidance during the academic year 2017 - 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

HOD 07/03/18

Signature

Project Work evaluation viva voce examination held on 07.03.2018

N. perhan-113/18 **EXTERNAL EXAMINER** 

This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS ADYAR ANANDA BHAVANHOTEL WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by A.MANIKANDAN, (Reg. No: 15UBA1360) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on 07.03.2018

INTERNAL EXAMINER

**EXTERNAL EXAMINER** 

N. July 7/3/18

This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS SONY LED TV WITH SPECIAL REFERENCE TO TIRUCHENGODE TOWN" is a bonafide work carried out by N.PARTHIBAN, (Reg. No: 15UBA1364) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on \_07 | 03 | 2018

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This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION WITH SPECIAL REFERENCE TO ARRS SILKS NAMAKKAL" is a bonafide work carried out by D.PRITHIVRAJ, (Reg. No: 15UBA1366) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on 67 03 2018

INTERNAL EXAMINER

EXTERNAL EXAMINER

This is certify that the project entitled "A STUDY ON CUSTOMERS OPINION REGARDING THE INFONET IN NAMAKKAL TOWN "is a bonafide work carried out by M. PUTHARAKARALMARKS, (Reg. No: 15UBA1367) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on <u>07-03-2018</u>

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EXTERNAL EXAMINER

This is certify that the project entitled "A STUDY ON PUBLIC PREFERENCE ON THE AVAILABILITY OF BUS SERVICE WITH SPECIAL REFERNCE TO NAMAKKAL TOWN"is a bonafide work carried out by R.RANJITHKUMAR, (Reg. No: 15UBA1370) under my supervision and guidance during the academic year 2017 - 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Signature of the Guide

Project Work evaluation viva voce examination held on 7. 3. 2016.

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This to certify that the report entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS FOGG PERFUME WITH REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by S.RANJITHKUMAR (Reg. No: 15UBA1371) under my supervision and guidance during the academic year 2018-2019 in the partial fulfilment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title

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05-03-2019

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This is to certify that the project entitled "A STUDY ON CONSUMER PREFERENCE OF HEALTH DRINKS IN NAMAKKAL TOWN "is a bonafide work carried out by S.SUBASH.Register No. 15UBA1374 under my Supervision and guidance duing the academic year 2017-2018 in partial fulfillment of the requirements for the Award of the Degree of Bachelor of Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associateship, fellowship or any other similar title.

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Project Work evaluation Viva- Voce examination held on Ollogal. 18

This is certify that the project entitled "A STUDY ON PUBLIC EXPECTATION TOWARDS PATANJALI BRAND WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by S.SUBASH, (Reg. No: 15UBA1375) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on 07.03.2018

INTERNAL EXAMINER

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This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS HONDA ACTIVA WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by K.VIGNESH, (Reg. No: 15UBA1378) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on 07.05.2018

INTERNAL EXAMINER

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This is certify that the project entitled "A STUDY ON CUSTOMER PREFERENCE TOWARDS INDIAN BANK WITH SPECIAL REFERENCE TO NAMAKKAL BRANCH" is a bonafide work carried out by R.VIJAY, (Reg. No: 15UBA1379) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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Project Work evaluation viva voce examination held on 07.03.2018

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EXTERNAL EXAMINER

N. July 1/3/18

This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS OPPO SMART PHONE WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by B.VIJAYAKUMAR, (Reg. No: 15UBA1380) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

This is certify that the project entitled "A STUDY ON EMPLOYEE JOB SATISFACTION TOWARDS KKP SPINNING MILLS PRIVATE LIMITED AT NAMAKKAL" is a bonafide work carried out by G.VINOTH, (Reg. No:15UBA1381) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Signature of the Guide

07/03/18

**HOD Signature** 

Project Work evaluation viva voce examination held on \_\_\_\_\_\_\_07/03/2018

le oriosis

INTERNAL EXAMINER

EXTERNAL EXAMINER

This is certify that the project entitled "A STUDY ON CUSTOMER SATISFACTION TOWARDS PROFESSIONAL COURIER WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by S.VIVINKUMAR, (Reg. No: 15UBA1382) under my supervision and guidance during the academic year 2017 - 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Signature of the Guide

**HOD Signature** 

This is certify that the project entitled "A STUDY ON READERS PERCEPTION TOWARDS HINDU NEWS PAPER WITH SPECIAL REFERENCE TO NAMAKKAL DISTRICT" is a bonafide work carried out by C.YOGANADHAN, (Reg. No: 15UBA1383) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Signature of the Guide

**HOD Signature** 

Project Work evaluation viva voce examination held on 07/03/2018

INTERNAL EXAMINER

**EXTERNAL EXAMINER** 

N. pulm 71318

This is to certify that the project entitled submitted "A STUDY ON CUSTOMER OPINION TOWARDS ONLINE SHOPPING OF ELECTRONIC GOODS IN NAMAKKAL TOWN" is a record of bonafide research work carried out by M/s.R.Gomathi Register No 15UBA1384 under my supervision and guidance during the academic year 2017 - 2018 in partial fulfillment of the requirements for the award of the Degree of Bachelor of Business Administration and the work in an original one and has not formed basis for the award of any other Degree, Diploma, Associateship, Fellowship of similar titles.

(Guide Signature)

(HOD Signature)

This is to certify that the project entitled submitted "A STUDY ON COSUMER BEHAVIOUR TOWARDS AACHI MASALA IN NAMAKKAL TOWN" is a record of bonafide research work carried out by M.SARASWATHI Register No 15UBA1387 under my supervision and guidance during the academic year 2017 - 2018 in partial fulfillment of the requirements for the award of the Degree of Bachelor of Business Administration and the work in an original one and has not formed basis for the award of any other Degree Diploma, Associateship, Fellowship of similar titles.

(Guide Signature)

(HOD Signature)

Project Work Evaluation Viva - Voce Examination Conducted on . Q.7. 13/8018. by

This is certify that the project entitled "A STUDY ON THE PROBLEMS FACED BY THE TEXTILE UNITS IN SIPCOT PERUNDURAI" is a bonafide work carried out by A. SOWNTHARYA, (Reg. No.15UBA1388) under my supervision and guidance during the academic year 2017 - 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Guide Signature

Project Work evaluation viva voce examination held on -

**EXTERNAL EXAMI** 

This is certify that the project entitled "A STUDY ON CUSTOMER PREFERENCE TOWARDS DOVE PRODUCTS WITH SPECIAL REFERENCE TO NAMAKKAL TOWN" is a bonafide work carried out by S. GANGADARAN (Reg. No: 14UBA1502) under my supervision and guidance during the academic year 2017 – 2018 in the partial fulfillment of the requirements for the award of the Degree of Bachelor Business Administration and the work is an original one and has not formed basis for the award of any degree, diploma, associate ship, fellowship or any other similar title.

Signature of the Guide

HOD Signature

Project Work evaluation viva voce examination held on 07.03.2018

INTERNAL EXAMINER

EXTERNAL EXAMINER

entitled project the that certify to This is "STUDIES OF FUZZY CONGRUENCE RELATION ON SEMIGROUP" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by S.AJITH., Reg.No. 16PMA1176., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.18

Place: Namakkal

Signature of the

Guide/Supervisor

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

External Examiner S. ROMADEV2,

HOD/MATHS/VKAS

certify that the dissertation entitled " A STUDY ON DIRECTED GRAPHS OF COMMUTATIVE RINGS" submitted in partial fulfillment of the requirement of the award of the degree of MASTER OF SCIENCE IN MATHEMATICS (Under Choice Based Credit System) to the Periyar University, Salem -11 is a record of bonafide research work carried out by R.CHINNATHAMBI, [Reg. No. 16PMA1177], Arignar Anna Government Arts College, Namakkal under my supervision and guidance and that no part of the dissertation has been submitted for the award of any Degree/Diploma/ Fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Date: 10,4,18
Place: Namakkal

f the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

5. RAMADEVI, HOD/MATHS/VKAS

entitled This certify that the project is to "PERFECT GRAPH" submitted in partial fulfillment of requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by S.ILAVARASAN, Reg. No. 16PMA1178., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.18

Place: NAMAKKAL

Signature of the

Guide/Supervisor

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002 External Examiner

S. RAMADEVI

HOD | MATHS | VKAS

This is to certify that the project entitled"A STUDY ON DOMINATION GRAPH" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS to the Periyar University, Salem -11 is a bonafide project work carried out byM.IYYAMPERUMAL.,(Reg. No. 16PMA1179)., under supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10-04-2018
Place: Namakkal.

2/6,4.18

Signature of the

Assist Guide/Supervisor Assist Guide/Super Mathematics, Arignar Anna Govt. Arts College,

Namakkal-637 002.

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

S, RAMA DEVI

HOD | MATHS | VKAS

This is to certify that the project entitled "SPECTRAL THEORY IN FUNCTIONAL ANALYSIS" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem –11 is a bonafide project work carried out by R.JAYAKUMAR, Reg. No. 16PMA1180., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/Fellowship or other similar title so far.

Date: 10-4-2018

Place: Namakkal

Signature of the

Guide/Supervisor

Signature of the Head of the Department

IDr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002 External Examiner

5. RAMADEVI

HOD) Maths / VKAS

This certify that the project entitled "THE THEORY OF P-GROUPS" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by G.MAHENDRAN, Reg. No. 16PMA1181., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.2018

Place: Namakkal

Signature of the

Guide/Supervisor

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

External Exami 5. RAMADEVI, HOD/ Machs/VKAS

certify This is to that the project entitled "A STUDY ON SQUARE DIFFERENCE LABELING FOR GRAPHS" submitted in partial fulfillment of the requirement for MASTER OF SCIENCE IN award of the degree of MATHEMATICS to the Periyar University, Salem -11 is a bonafide R.MANIKANDAN, work carried out by Reg. No. project **16PMA1183** under my supervision and guidance and that no part of the project has been submitted for the award of any Degree /Diploma /Associateship / Fellowship or other similar title SO far.

Place: Namakkal

Date: 10.04.2018

Signature of the

Guide / Supervisor
Dr. V. SIVAKUMAR,
M.Sc., M.Phll., PGDCA, Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

Head of the Department
Dr.V. GANESAN, M.Sc., M.Phil, B.Ed., PGDCA., Ph.D.,

Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

957 11u/18

Internal Examiner
Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu,

External Examiner

S. RAMA DEVI HODI MATHSI VICAS

This to certify that the dissertation entitled " A STUDY ON CONNECTEDNESS IN IDEAL TOPOLOGICAL SPACES " submitted in partial fulfillment of the requirement of the award of the degree of MASTER OF SCIENCE IN MATHEMATICS (Under Choice Based Credit System) to the Periyar University, Salem -11 is a record of bonafide work carried out by T. MANIKANDAN, [Reg. No. 16PMA1184], research Arignar Anna Government Arts College, Namakkal under my supervision and guidance and that no part of the dissertation has been submitted for the award of any Degree/Diploma/ Fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Place: Namakkal

Date : 10/04/18

Signature of the Guide

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

External Examiner

Internal Examiner

S. RAMADEVI,

HOD | Maths | VKAS

entitled the project certify that This is to "STUDIES ON GENERALIZED b\* CLOSED SETS IN TOPOLOGICAL SPACES " submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by P.MANOJ KUMAR, Reg. No. 16PMA1185 under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10-04-2018.

Place: NAMAKKAL.

Signature of the

Guide/Supervisor

Dr. P. SUNDARARAJAN, Ph.D.,
Asst. Professor, PG and Research
Department of Mathematics
ARIGNAR ANNA GOVT.ARTS COLLEGE
NAMAKKAL - 637 002

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002 External Examiner

S. RAMADEVI

HODI MATHS / VICAS

This is to certify that the project entitled "CONTRIBUTION TO THE THEORY OF IRREDUCIBLE IDEALS IN SUBTRACTION ALGEBRA" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by P.MARUDU PANDIYAN, Reg. No. 16PMA1186., supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10 104 18

Place: Nama Lleal

Signature of the

Guide/Supervisor

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D.,
Asst. Professor, PG and Research
Department of Mathematics
ARIGNAR ANNA GOVT.ARTS COLLEGE
NAMAKKAL - 637 002

External Examiner

SIRAMADENI

HOD MATHS VKAS

entitled This is certify that the project to "APPLICATION OF LINEAR PROGRAMMING IN MARKETING AND FINANCE" submitted in partial fulfilment of the requirement for the award of the Degree of Master of Science in MATHEMATICS to the Periyar University, Salem -11 is a bonafide project work carried out by P.OMSARAVANAN., (Reg. No. 16PMA1187)., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10-4-18

Place: pamakkal.

Signature of the

Assista Anna Govi. Arison lege,

Arignar Anna Govil AMS 81 Namakkal-637 002.

Ch 2 Totallo

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

External Examiner

S. RAMADEVI

HOD | MATHS | VKAS

entitled project the that certify This to "A STUDY ON FIBONACCI SEQUENCE AND ITS PROPERTIES" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by S.PADMANABAN, Reg. No. 16PMA1188 under my supervision and guidance and that no part of the project the award of submitted for has been Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.0H,2018

Place: NAMAKKAL

Signature of the Guide/Supervisor

Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

**Internal Examiner** 

Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

External Examiner S. RAMADEVI,

HOD IMATHSIVKAL

This is to certify that the dissertation entitled "A STUDY ON COMPLEMENT OF A FUZZY GRAPH" submitted in partial fulfillment of the requirement of the award of the degree of MASTER OF SCIENCE IN MATHEMATICS (Under Choice Based Credit System) to the Periyar University, Salem –11 is a record of bonafide research work carried out by M.POOVARASAN, [Reg. No. 16PMA1189], Arignar Anna Government Arts College, Namakkal under my supervision and guidance and that no part of the dissertation has been submitted for the award of any Degree/Diploma/Fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Place: Namakkal

Date : 10/04/18

Signature of the Guide

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phill, B.Ed.,PGDCA, PhiD., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

External Examiner

BOD / HATHS (VKA)

Internal Examiner

This is to certify that the project entitled"AN INVENTORY MODEL FOR TIME VARYING HOLDING COST" submitted in partial fulfillment of the requirement for the award of the Degree ofMaster of Science in MATHEMATICS to the Periyar University, Salem -11 is a bonafide project carried out by A.PRASATH., work (Reg.No.16PMA1191)., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10, 4.18
Place: NAMAKKAL

Guide/Supervisor

10/04/19. Signature of the Head of the Department

> Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

External Examiner

S. RAMADEVI HOD MATHS VKAS

entitled dissertation the certify that This is " A STUDY ON EVEN VERTEX MAGIC TOTAL LABELING " submitted in partial fulfillment of the requirement of the award of the degree of MASTER OF SCIENCE IN MATHEMATICS (Under Choice Based Credit System) to the Periyar University, Salem -11 is a record of bonafide research work carried out by G.BHUVANESHWARI, [Reg. No. 16PMA1192], Arignar Anna Government Arts College, Namakkal under my supervision and guidance and that no part of the dissertation has been submitted for the award of any Degree/Diploma/ Fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Place: Namakkal

Date :10/04/2018

Signature of the Guide

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil, B.Ed., PGDCA., PlfD., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

External Examiner

S. RAMADEVI HOD | MATHS | VKAS Internal Examiner

to certify that the project entitled "EXISTENCE AND UNIQUENESS SOLUTION OF DELAY DIFFERENTIAL EQUATIONS" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by S. BHUVANESWARI, Reg. No. 16PMA1193 under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.18

Numakkel Place:

Signature of the

Guide/Supervisor

Signature of the Head of the Department

Dr. V. GANESAN, M.Sc., M.Phil., B.Ed., PGDGA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College,

NAMAKKAL - 637 002.

**Internal Examiner** 

External E S, RAMADEY! HODI MATHSIVKAS

is to certify that the project entitled "A STUDY ON EQUIVALENCE RELATIONS AND DISTANCES BETWEEN HILBERT FRAMES" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by G.DEEPA, Reg. No. 16PMA1194 under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10/4/18

Place: Namakkal

Signature of the

Guide/Supervisor

Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

External Examiner

SRAMADEVI)

HODIMATHS IVED

I

This is to certify that the project entitled "GRAPHOIDAL COVERING NUMBER OF A GAPH THEORY" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS the Periyar University, Salem is a record bonafide project work carried out by R.GOWTHAMI (Reg. No. 16PMA1195) under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Signature of the

Guide/SupervisorPATHI
Assistant Professor of Mathematics,
Arignar Anna Govt. Arts Gollege,
Namakkal-637 002.

Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

External Examine

HODI MATHS VKAS

Place: Namakkal

Date: 10.4.18

This certify is to that the dissertation entitled " A STUDY ON PRIME LABELLING OF SOME SPECIAL GRAPHS " submitted in partial fulfillment of the requirement of the award of the degree of MASTER OF SCIENCE IN MATHEMATICS (Under Choice Based Credit System) to the Periyar University, Salem -11 is a record of bonafide research work carried out by K.JOTHIMANI, [Reg. No. 16PMA1196], Arignar Anna Government Arts College, Namakkal under my supervision and guidance and that no part of the dissertation has been submitted for the award of any Degree/Diploma/ Fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Place: Namakkal

Date : 10/4/18

Signature of the Guide

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA, Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002,

External Examiner

S. RAMADEVI, HOD/MATHS/VKBS Internal Examiner

This is certify that to the project "A STUDY ON MAGIC STRENGTH OF LABELLINGS AND CYCLES" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by N.KALAISELVI, Reg. No. 16PMA1197 under my supervision and guidance and that no part of the project award of submitted for the any been has Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.2018

Place: NAMAKKAL

Signature of the

Guide/Supervisor

M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor

Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

Signature of the Head of the Department

Dr.V. GANESAN,
M.Sc., M.Phil., B.Ed., PGDCA, Ph.D.,
Heac Department of Mathematics,
Angue And Govi Arts College,
NAMAKKAL - 637 002.

Internal Examiner

Dr. V. SIVAKUMAR, M.Sc., M.Phil., PGDCA., Ph.D., Assistant Professor Department of Mathematics Arignar Anna Govt. Arts College Namakkal - 637 002. Tamilnadu. External Examiner

SORAMADEVI, HODIMATHS/NKAS

This to certify that the project entitled "SOME STUDY ABOUT FUZZY OPERATIONS IN MATRIX" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS the Periyar University, Salem is a record bonafide project work carried out by B.KALAIYARASI (Reg. No. 16PMA1198) under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Z, L, Jorn, 18
Signature of the

Guide/Supervisor

0 h 1 1 11 118

Head of the Department

AMAKKAL - 637 002.

Internal Examiner

3. Chr 711.4.18

DALEI II a

S. RAMA DEVI

HOD | maths 1 VKBS

Place: Namakkal

Date: 10.04.2018

This is to certify that the project entitled "A NEW BRANCH OF LOGICAL ALGEBRA UP ALGEBRA" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by R.KAVITHA., Reg.No. 16PMA1199., under my supervision and guidance and that no part of the project has been submitted for the award Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.2014 Place: MAMAKKAL (10)04/2018

Signature of the Guide/Supervisor

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College,

NAMAKKAL - 637 002.

Internal Examiner

Dr. P. SUNDARARAJAN, Ph.D., Asst. Professor, PG and Research Department of Mathematics
ARIGNAR ANNA GOVT.ARTS COLLEGE NAMAKKAL - 637 002

S. RAMADEVI, HOD /MOTHS /YXDS

that the project entitled certify This "SOME STUDY ABOUT DIRECTED GRAPH" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS the Periyar University, Salem is bonafide project work carried out by K.MALATHI (Reg. No. 16PMA1200) under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Signature of the

2. Cr /10.4.18

Guide/Supervisor

Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D.,

Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

1. Chr711.4.18 **Internal Examiner** 

3. RAMADEVI, HOD/MATHS/VKAS

Place: Namakkal

Date: 10. 04. 2018

project entitled the This is certify that to "SOME NEW SETS AND TOPOLOGIES IN IDEAL TOPOLOGICAL SPACES" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by K.SARANYA, Reg. No. 16PMA1201 under my supervision and guidance and that no part of project has been submitted for the award the Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.4.18

Place: Namak kal

Signature of the

Guide/Supervisor

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Intownal Evamina

External Examiner

S. RAMADEVI HOD/MATHS/VKAS

NUMBERS AND FUZZY ARITHMETICS" submitted inpartial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by V.SENTHAMIL., Reg.No.16PMA1202., under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/Fellowship or other similar title so far.

Date: 10.04.2018

Place: Nanakkal

Signature of the

Guide/Supervisor

Dr. V. SIVAKUMAR,
M.Sc., M.Phil., PGDCA., Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002. Tamilnadu.

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc.,M.Phil.,B.Ed.,PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

Dr. V. SIVAKUMAR,
M.Sc., M.Phil, PGDCA, Ph.D.,
Assistant Professor
Department of Mathematics
Arignar Anna Govt. Arts College
Namakkal - 637 002, Tamilnadu.

External Examiner

S.RAMADEVI,

HODIMATHS/VKAS

This is to certify that the project entitled "SOME STUDIED IN CRYPTOGRAPHY" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS the Periyar University, Salem -11 is a bonafide project work carried out by R.SUGANTHI, Reg. No. 16PMA1203 under my supervision and guidance and that no part of the project has been submitted for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10.04.2018

Place: Namakkal

Signature of the

Guide/Supervisor

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Internal Examiner

S. RAMADEVI

HODI MATHS VKAS

This certify that the project entitled is "A STUDY ON NASTY AND TRIANGULAR NUMBERS" submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in MATHEMATICS (Under Choice Based Credit System) the Periyar University, Salem -11 is a bonafide project work carried out by M. THENNAGASELVI., Reg.No., 16PMA1204 under my supervision and guidance and that no part of the project submitted has been for the award of any Degree/Diploma/Associateship/ Fellowship or other similar title so far.

Date: 10-04-18

Place: Namakbal

Signature of the

J. Chr 710'4'18

Guide/Supervisor

Signature of the Head of the Department

Dr.V. GANESAN, M.Sc., M.Phil., B.Ed., PGDCA., Ph.D., Head, Department of Mathematics, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

**Internal Examiner** 

External Examine

S. RAMADEVI, HOD/ Maths / VKAS Dr.D.SASIKUMAR, M.Sc., M.Phil., Ph.D.

Assistant Professor
PG & Research Department of Physics
Arignar Anna Government Arts College
Namakkal-637 002

#### CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS AND CHARACTERIZATION OF CuO THIN FILM DEPOSITION BY DIPCOATING METHOD" submitted to the Periyar University, Salem in Partial fulfillment of the requirement for the award of the degree of MASTER OF SCIENCE IN PHYSICS is a bonafide record of research work done by S.SOWMIYA, (Reg. No. 16PPH1065) during 2017 – 2018 and that the dissertation has not previously formed the basis for the award of any other Degree, Diploma, associateship, fellowship or other tittle that the dissertation represents independent and original work on the part of the candidate under my guidance.

Place: Namakkal

Date: 4/4/18

Signature of the Guide

(Dr.D.SASIKUMAR.)

Dr. D. SASIKUMAR, M.Sc.,M.Phil.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal - 637 002, Tamilnadu.

Dr. V. VELUSAMY, M.Sc., M. Phil., PGDCA., Ph.D. Assistant Professor PG&Research Department of Physics Arignar Anna Government Arts College, Namakkal – 637 002



## CERTIFICATE

This is to certify that the thesis entitled "MOLECULAR INTERACTION STUDIES ON IMPACT OF DIETHYL ETHER ADDITION IN DIESEL + BIODIESEL + ETHANOL BLEND" by M. SANJEEVAN is a record of project work done by him during the period of his study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associateship, fellowship or other similar title.

This is also certifying that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 9.4.2018

of the Department il Ph.D. Associate Professor & Head, PG& Research Department of Physics, Arignar Anna Govt Arts College, Namakkal-2, Tamil Nadu.

Dr.V.VELUSAMY, M.Sc., M.Phil., PGDCA., Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal - 637 002, Tamilnadu.

**External Examiner** 

D. Bana

Dr. V. VELUSAMY, M.Sc., M. Phil., PGDCA., Ph.D.

**Assistant Professor** 

PG&Research Department of Physics

Arignar Anna Government Arts College,

Namakkal – 637 002 NOL BLEFFE ANDROLLED



#### of science in physics is CERTIFICATE mal research work

This is to certify that the thesis entitled "MOLECULAR INTERACTION STUDIES ON IMPACT OF DIETHYL ETHER ADDITION IN DIESEL + BIODIESEL + ETHANOL BLEND" by M. SANJEEVAN is a record of project work done by him during the period of his study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associateship, fellowship or other similar title.

This is also certifying that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 09.4.2018

Dr. S. BANGARU M Sc. M.Phil., Ph.D.,

Associate Professor & Head, PG & Research Department of Physics, Arigner Arina Govt. Aria Gollege, Namakkal-2, Tamil Nadu.

Internal Examiner 18

Signature of Guide
Dr.V.VELUSAMY, M.Sc.,M.Phill.,PCDCA.,Ph.D.,
Assistant Professor of Physics
Post Graduate & Research Department
Arignar Anna Government Arts College
Namakkal - 637 002, Tamilnadu.

**External Examiner** 

# ARIGNAR ANNA GOVERNMENT ARTS COLLEGE, NAMAKKAL – 637 002.

# POST GRADUATE & RESEARCH DEPARTMENT OF PHYSICS CERTIFICATE

This is to certify that the project work entitled Intermolecular interactions in ternary liquid mixtures of Nitrobenzene + Ethonol + Benzoldehyde by ultrasonic velocity measurements submitted to the Periyar University in partial fulfilment of the requirements for the award of the Degree of Master of Science in Physics is a bonafide record of work done by Ms.B.Dhivya (Register No : 16PPH1066) under the guidance of Dr. N. Palanivelu, Assistant Professor of Physics, Arignar Anna Government Arts College, Namakkal.

This is also to certify that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 10.4.2018

Dr. S. BANGARU, M.sc., M.Phil., Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Govt. Arts College,
Namakkal-2, Tamil Nadu.

Internal Examiner

Signature of the Guide
Dr.N.PALANIVELU, M.Sc., M.Phil., B.Ed., Ph.D.,
Assistant Professor of Physics,
Arignar Anna Govt. Arts College,
Namakkal - 637 002, Tamilnadu.

**External Examiner** 

Dr. D.SASIKUMAR., M.Sc., M.Phil., Ph.D

Assistant professor
Department of Physics
Arignar Anna Government Arts College,
Namakkal – 637 002.

#### CERTIFICATE

This is to certify that the dissertation entitled "PREPARATION AND CHARACTERIZATION OF CuO THIN FILM DEPOSITION BY DIPCOATING METHOD" submitted to the Periyar University, Salem in Partial fulfillment of the requirement for the award of the degree of MASTER OF SCIENCE IN PHYSICS is a bonafide record of research work done by S.PRIYA, (Reg. No. 16PPH1073) during 2017 – 2018 and that the dissertation has not previously formed the basis for the award of any other Degree, Diploma, associateship, fellowship or other tittle and that the dissertation represents independent and original work on the part of the candidate under my guidance.

Place: Namakkal

Date: 4/4/18

Signature of the Guide

(Dr.D.SASIKUMAR)

Dr. D. SASIKUMAR, M.Sc.,M.Phil.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal - 637 002, Tamilnadu. Dr.R.GOBI M.Sc., B.Ed., M.Phil., Ph.D.,

Assistant Professor, PG & Research Department of Physics, Arignar Anna Government Arts College,

Namakkal-637 002.



#### CERTIFICATE

DECLARATION

This is to certify that the M.Sc thesis entitled "INFLUENCE OF ANNEALING TEMPERATURE ON SYNTHESIZED BaSO<sub>4</sub> NANOPARTICLES VIA CHEMICAL PRECIPITATION METHOD" by P.NANDHAKUMAR is a record of project work done by his during the period of his study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associate ship, fellowship or other similar title.

This is also to certify that the thesis represents the independent work of the candidate.

Date: 09.04.2018

Place: NAMAKKAL

(Dr. R. GOBI)

### Dr. V. VELUSAMY, M.Sc., M. Phil., PGDCA., Ph.D.

**Assistant Professor** 

PG&Research Department of Physics

Arignar Anna Government Arts College,

Namakkal - 637 002



#### CERTIFICATE

This is to certify that the thesis entitled "MOLECULAR INTERACTION STUDIES ON IMPACT OF DIETHYL ETHER ADDITION IN DIESEL + BIODIESEL + METHANOL + BLEND" by Ms. G. PAVITHRA is a record of project work done by her during the period of her study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associateship, fellowship or other similar title.

This is also certifying that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 6.4.2018

Head of the Department

Dr. S. BANGARU, A.Sc., M.Phil., Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Govt. Arts College,
Namakkal-2, Tamil Nadu.

Internal Examiner

Signature of Guide.Phl.,PGDCA.,Ph.D.,
Assistant Professor of Physics
Post Graduate & Research Department
Arignar Anna Government Arts College
Namakkal - 637 002, Tamilnadu.

**External Examiner** 

Dr. N. SETHUPATHI

**Assistant Professor** 

**Department of Physics** 

Arignar Anna Government Arts College

Namakkal - 637002

**CERTIFICATE** 

This is to certify that the MSc thesis titled "REFRACTIVE INDEX

VALUES OF VARIOUS PERCENTAGE OF GLUCOSE SOLUTIONS

BY LASER DIFFRACTION METHOD" by M.KIRUTHIKA, Reg.

No:16PPH1069 is a record of research work done by her during the period of

her study under my guidance and the thesis has not previously formed the

basis for the award of any other degree, diploma, associate ship, fellowship or

other similar title. This is also to certify that the thesis represents the

independent work of the candidate.

Place: Namakkal

Date: 09.04.2018.

B COUR of

Signature of the Guide

Dr. N. SETHUPATHI, M.Sc,M.Phil,Ph.D, Assistant Professor of Physics, Post Graduate & Research Department, Arignar Anna Government Arts College, Namakkal - 637 002, Tamil Nadu.

# ARIGNAR ANNA GOVERNMENT ARTS COLLEGE, NAMAKKAL – 637 002.

# POST GRADUATE & RESEARCH DEPARTMENT OF PHYSICS CERTIFICATE

This is to certify that the project work entitled Effect of benzoldehyde addition on the ultrasonic properties of ternary liquid mixtures submitted to the Periyar University in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a bonafide record of work done by Mr.P.Ramesh (Register No: 16PPH1061) under the guidance of Dr. N. Palanivelu, Assistant Professor of Physics, Arignar Anna Government Arts College, Namakkal.

This is also to certify that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 10.04.2018

Signature of the HOD

Dr. S. BANGARU, M.Sc., M. Phil., Ph.D.,

Associate Professor & Head, PG & Research Department of Physics, Arignar Anna Govt. Arts College,

Namakkal-2, Tamil Nadu.

Signature of the Guide

Dr.N.PALANIVELU, M.Sc., M.Phil., B.Ed., Ph.D., Assistant Professor of Physics,

Arignar Anna Govt. Arts College, Namakkal - 637 002, Tamilnadu.

**External Examiner** 

ii

# ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL-2



#### CERTIFICATE

Certified that the thesis titled "MOLECULAR STRUCTURE AND VIBRATIONAL SPECTRA OF O-BROMOBENZOYL CHLORIDE BY DENSITY FUNCTIONAL METHODS" is a bonafide record of work done by S. MANIKANDAN with University Register No: 16PPH1079 during the year 2017-2018 in the Department of Physics under supervision of Dr. M. KANDASAMY, Assistant Professor of Physics, Arignar Anna Govt. Arts College, Namakkal and is submitted to the Periyar University, Salem in partial fulfillment of the requirements for the award of the Degree of Master of Philosophy in Physics.

Candidate Candidate

Research Guide

Dr.M. KANDASAMY, M.Sc.,M.Phil.,PGDCA.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department

Arignar Anna Government Arts College Namakkal-637 002, Tamilnadu.

Head of the Department 417

Dr. S. BANGARU, M. c., M. Phil., Ph.D.,
Associate Professo & Head,
PG & Research Department of Physics,
Arignar Anna Govt Alts College,
Namakkar-2, Tamil Nadu.

Dr. N. SETHUPATHI

**Assistant Professor** 

**Department of Physics** 

Arignar Anna Government Arts College

Namakkal 637002

CERTIFICATE A Local Chery Sin Targetal

This is to certify that the MSc thesis Titled " REFRACTIVE INDEX VALUES OF VARIOUS PERCENTAGE OF SUGAR SOLUTIONS BY LASER DIFFRACTION METHOD" by M.LOGESHWARI, Reg. No:16PPH1070 is a record of research work done by her during the period of her study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associate ship, fellowship or other similar title. This is also to certify that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 09.84.2018.

15 COAS

Signature of the Guide

Dr. N. SETHUPATHI, M.Sc, M.Phil, Ph.D, Assistant Professor of Physics, Post Graduate & Research Department, Arignar Anna Government Arts College, Namakkal - 637 002, Tamil Nadu.

Certified that the dissertation titled "Crystal Growth and Characterization of Pure KBr & RbBr Single Crystals" is a bonafide record of research work done by L.Gowri with Register No.16PPH1067 under the supervision of Dr.S.BANGARU, Associate Professor and Head, PG & Research Department, Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2 and is submitted to the Periyar University, Salem-11 in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics.

1. Gowri Signature of Candidate

Signature of Research Guide

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Govt. Arts College,
Namakkal-2, Tamil Nadu.

Head of the Department 141

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Gov. Arts College,
Namakkal-2, amil Nadu.

Certified that the dissertation titled "Crystal Growth and Characterization of Pure KBr & RbBr Single Crystals" is a bonafide record of research work done by L.Gowri with Register No.16PPH1067 under the supervision of Dr.S.BANGARU, Associate Professor and Head, PG & Research Department, Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2 and is submitted to the Periyar University, Salem-11 in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics.

1. Gowri

Signature of Candidate

Signature of Research Guide

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D., Associate Professor & Head, PG & Research Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu.

Flead of the Department

Dr. S. BANGARU, M.Sc.,M.Phil.,Ph.D., Associate Professor & Head, PG & Research Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu. Dr.R.GOBI M.Sc., B.Ed., M.Phil., Ph.D., Assistant Professor, PG & Research Department of Physics, Arignar Anna Government Arts College, Namakkal-637 002.



#### **CERTIFICATE**

This is to certify that the M.Sc thesis entitled "A BIOGENIC APPROACH FOR GREEN SYNTHESIS OF SILVER NANOPARTICLES USING PEEL EXTRACT OF MANGIFERA INDICA" by T.POTHUMPONNU is a record of project work done by his during the period of his study under my guidance and the thesis has not previously formed the basis for the award of any other degree/diploma/associate ship/ fellowship or other similar title.

This is also to certify that the thesis represents the independent work of the candidate.

Place: NAMAKKAL

Date: 09.04.2018

Signature of the Guide

(Dr.R.GOBI)

Dr.D.SASIKUMAR, M.Sc., M.Phil., Ph.D.

Assistant Professor PG & Research Department of Physics Arignar Anna Government Arts College Namakkal-637 002

of Dr. D.SASIRUMAR that CERTIFICATE a for the a vand my Degree

This is to certify that the M.Sc thesis titled "SYNTHESIS AND CHARACTERIZATION OF ZnO TNIN FILM DEPOSITION BY DIP COATING METHOD Submitted by K.SARANYA is a record of project work done by her during the period of her study under my guidance and the thesis has not been previously formed the basis for the award of any other degree, diploma, associate ship, fellowship or any other similar title.

This is also to certify that the thesis represents the independent work of the candidate.

Place: NAMAKKAL

Date: 4/4)18

Signature of the Guide

(Dr.D.SASIKUMAR)

Dr. D. SASIKUMAR, M.Sc.,M.Phil.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal - 637 002, Tamilnadu.

Certified that the dissertation titled THE PXRD, FTIR, FT-RAMAN AND VICKER'S MICROHARDNESS STUDIES ON PURE KCI AND RbCl SINGLE CRYSTALS "is a bonafiderecord of research work done by R.PRITHIVIRAJ with Register No.16PPH1060 under the supervision of Dr.S.BANGARU, Associate Professor and Head, PG & Research Department, Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2 and is submitted to the Periyar University, Salem-11 in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics.

2. Prithivires
Signature of Candidate

Signature of Research Guide

Dr. S. BANGARU M.Sc., M.Phil., Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Govt. Arts College,
Namakkal-2, Tamil Nadu.

Head of the Department

Dr. S. BANGARU, Mcc.,M.Phill.,Ph.D.,
Associate Professor & Head,
PG & Research Department of Physics,
Arignar Anna Govt. Arts College,
Namakkal-2, Tamil Nadu.

Certified that the dissertation titled "A New Four-parameter Generalized van der Waals Equation of State: Metastable State of Group IV Elements" is a bonafide record of project work done by G.Theertharaman with University Register No.16PPH1078 under the supervision of Dr.R.Balasubramanian, Assistant Professor, PG and Research Department of Physics, Arignar Anna Government Arts College, Namakkal and is submitted to the Periyar University, Salem in partial fulfillment of the requirements for the award of the Degree of Master of science in Physics

Candidate

Research Guide

Dr. R. BALASUBRAMANIAN

M.Sc., Ph. D., (Moscow)

Assistant Professor of Physics

Arignar Anna Govt. Arts College

Namakkal - 637 002.

Head of the Department

Dr. S. BANGARU M.Sc., M.Phil., Ph.D.,
Associate Professor & Head,

PG & Research Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu.

#### ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL-2



#### **CERTIFICATE**

Certified that the thesis titled "VIBRATIONAL SPECTROSCOPIC **STUDIES** AND **COMPUTATIONAL** STUDY MOLECULAR STRUCTURE, FRONTIER MOLECULAR ORBITALS OF 3-AMINO-2-BROMOPYRIDINE BY DENSITY FUNCTIONAL METHODS" is a bonafide record of work done by R. KALAISELVAN with University Register No: 16PPH1058 during the year 2017-2018 in the Department of Physics under supervision of Dr.M. KANDASAMY, Assistant Professor of Physics, Arignar Anna Govt. Arts College, Namakkal and is submitted to the Periyar University, Salem in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics.

Candidate

f the Department

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D., Associate Professor & Head, PG & Research Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu.

Research Guide

Dr.M. KANDASAMY, M.Sc., M.Phil., PGDCA., Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal-637 002, Tamilnadu.

Dr. V. VELUSAMY, M.Sc., M. Phil., PGDCA., Ph.D.

**Assistant Professor** 

PG&Research Department of Physics

Arignar Anna Government Arts College,

Namakkal - 637 002



#### CERTIFICATE

This is to certify that the thesis entitled "MOLECULAR INTERACTION STUDIES ON IMPACT OF DIETHYL ETHER ADDITION IN DIESEL + BIODIESEL + METHANOL + BLEND" by Ms. G. PAVITHRA is a record of project work done by her during the period of her study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associateship, fellowship or other similar title.

This is also certifying that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 6.4.2018

Head of the Department

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D.,

Associate Professor & Head,
PG & Research Department of Physics,

Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu.

Internal Examiner

Signature of Guide

(G.PAVIIIIIA)

Dr.V.VELUSAMY, M.Sc.,M.Phil.,PGDCA.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College

2. Barelia

**External Examiner** 

Dr.R.GOBI M.Sc., B.Ed., M.Phil., Ph.D.,Assistant Professor,PG & Research Department of Physics,

Arignar Anna Government Arts College,

Namakkal-637 002.



#### **CERTIFICATE**

This is to certify that the M.Sc thesis entitled "EFFECT OF Sn CONCENTRATION ON THERMAL, STRUCTURAL, FUNCTIONAL AND MORPHOLOGICAL PROPERTIES IN CdO NANOPARTICLES" by A.VENKATESH is a record of project work done by his during the period of his study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associate ship, fellowship or other similar title.

This is also to certify that the thesis represents the independent work of the candidate.

Place: NAMAKKAL

Date: 09/04/18

Signature of the Guide

(Dr.R. GORI)

# Dr. V. VELUSAMY, M.Sc., M. Phil., PGDCA., Ph.D.

Assistant Professor

PG & Research Department of Physics

Arignar Anna Government Arts College,

Namakkal – 637 002



#### CERTIFICATE

This is to certify that the thesis entitled "MOLECULAR INTERACTION STUDIES ON DIESEL + BIODIESEL + METHANOL BLEND" is a record of project work done by G. VANITHA during the period of her study under my guidance and the thesis has not previously formed the basis for the award of any other degree, diploma, associateship, fellowship or other similar title.

This is also certifying that the thesis represents the independent work of the candidate.

Place: Namakkal

Date: 4.4.18

lead of the Department

Dr. S. BANGARU, M.Sc., M.Phil., Ph.D., Associate Professor & Head, PG & Research Department of Physics, Arignar Anna Govt. Arts College, Namakkal-2, Tamil Nadu.

Internal Examiner

Signature of Guide

Dr.V.VELUSAMY, M.Sc.,M.Phil.,PGDCA.,Ph.D., Assistant Professor of Physics Post Graduate & Research Department Arignar Anna Government Arts College Namakkal - 637 002, Tamilnadu.

**External Examiner** 

Dr. N. SETHUPATHI

**Assistant Professor** 

**Department of Physics** 

Arignar Anna Government Arts College

Namakkal - 637002

CERTIFICATE

This is to certify that the MSc thesis titied " REFRACTIVE INDEX

VALUES OF VARIOUS PERCENTAGE OF Nacl(SODIUM

CHLORIDE) SOLUTIONS BY LASER DIFFRACTION METHOD" by

S.KANAGA, Reg. No:16PPH1081 is a record of research work done by her

during the period of her study under my guidance and the thesis has not

previously formed the basis for the award of any other degree, diploma,

associate ship, fellowship or other similar title. This is also to certify that the

thesis represents the independent work of the candidate.

Place: Namakkal

Date: 09,04,0018

Signature of the Guide

Dr. N. SETHUPATHI, M.Sc.M.Phil,Ph.D.

Assistant Professor of Physics,
Post Graduate & Research Department,
Arignar Anna Government Arts College,
Namakkal - 637 002, Tamil Nadu.

This is to certify that the project work dissertation entitled "CARBON NANOTUBE SANDWICHED MANGANESE OXIDE THIN FILMS USING JET-NEBULIZER SPRAY PYROLYSIS DEPOSITION TECHNIQUE" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by N.SARAVANAN, Reg No: 16PCH1134 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

வேதியியல் துறை, அ.அ.அரசு கலைக் கல்லூரி, நாயக்கல் - 637 001

Signature of the Guide

Submitted for the Viva Voce examination held on:

EXAMINERS: 1) S. Mangayarkerne 12/4/18.
2) l-maly n
12/4/18

This is to certify that the project work dissertation entitled "GRAPHITIC OXIDE SANDWICHED TUNGSTEN OXIDE THIN FILM USING JET-NEBULIZER SPRAY PYROLYSIS DEPOSITION TECHNIQUE" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by M.KARTHIKEYAN, Reg No: 16PCH1128 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Head of the Department

Signature of the Guide

Submitted for the Viva Voce examination held on:

EXAMINERS: 1) S. Mangayarkena. 12/4/18.

2) l. merly n 12/4/18

# ARIGNAR ANNA GOVERNMENT ARTS COLLEGE- NAMAKKAL -2

[Affiliated to Periyar University Salem, Govt. of Tamil Nadu]

## PG & RESEARCH DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the dissertation entitled "Removal of Total Dissolved Solids, Total hardness and Chlorides of Bore Well Water using Citrus aurantium L., fruit shellsActivated Carbon " is a bonafide record of research work done by Ms.M.SATHYA [Reg. No: 17PCH1162] during 2018- 2019, submitted to the Periyar University, Salem in partial fulfillment of the requirement for theaward of the Degree of MASTER OF SCIENCE IN CHEMISTRY and that the dissertation has not previously formed the basis for the award of any other Degree, Diploma, Associate - ship, Fellowship or other title and that the dissertation represents in independent and original work on the part of the candidate under the guidance of Dr.P.THAMILARASU, Assistant Professor of Chemistry, PG and Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal -2.

SIGNATURE OF THE GUIDEHEAD OF THE DEPAR வேறிவியக் துறை,

Dr. P. THAMILARASU, M.Sc., M.Phil., Ph.O.,

Assistant Professor,

PG & Research Department of Chemistry,

Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

SOUTH A.

# ARIGNAR ANNA GOVERNMENT ARTS COLLEGE- NAMAKKAL -2

[Affiliated to Periyar University Salem, Govt. of Tamil Nadu]

## PG & RESEARCH DEPARTMENT OF CHEMISTRY

#### CERTIFICATE

This is to certify that the dissertation entitled "Kinetic and Equilibrium Studies on the Removal of Cango red Dye Onto Vigna radiatus Pericarb Activated Carbon " is a bonafide record of research work done by Mr. T. KARTHIK [Reg. No: 17PCH1166]during 2018- 2019, submitted to the Periyar University, Salem in partial fulfillment of the requirement for the award of the Degree of MASTER OF SCIENCE IN CHEMISTRY and that the dissertation has not previously formed the basis for the award of any other Degree, Diploma, Associate - ship, Fellowship or other title and that the dissertation represents in independent and original work on the part of the candidate under the guidance of Dr. P. THAMILARASU, Assistant Professor of Chemistry, PG and Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal -2.

Assistant Professor,

PG & Research Department of Chemistry, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

**EXAMINERS** 

HEAD OF THE

அ.அ.அரசு கலைக் கல்லூரி, 68'46'50 - 837 001.

This is to certify that the project work dissertation entitled "SYNTHESIS OF NANO ZnO AND ITS APPLICATION TO PHOTOCATALYSIS" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by D.VEDIYAPPAN, Reg No: 16PCH1136 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Head of the Department குறைத் தலைக்காக வேதியியல் துறை, அ.அ.அரசு கலைக் கல்லூரி, நாமக்கல் - 637 001. Signature of the Guide துறைத் தலைகள், வேதியியல் துறை, அ.அ.அரசு கலைக் கல்லூரி, நாமக்கல் - 637 001.

Submitted for the Viva Voce examination held on:

EXAMINERS: 1) S. Mangayanlar - 12/4/80/8

This is to certify that the project work dissertation entitled "GREEN APPLICATION **BISMUTH** SYNTHESIS AND OF BASED PHOTOCATALYST" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by P.SASIKALA, Reg No: 16PCH 1141 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Drund 1.14/18

Assistant Professor / Chemistry Arignar Anna Govt. Arts College

Namakkal - 637 002

Head of the Department வேதியியல் துறை, M.M. ATA SORE SOMA

Submitted for the Viva Voce examination held on:

1) S. Mangayarkarai 12/4/18.

This is to certify that the project work dissertation entitled \*MICROWAVE SYNTHESIS OF AN ACTIVATED CARBON AND ANALYSING ITS APPLICATIONS" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by P.MADHESH, Reg No: 16PCH1129 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Signature of the Guide

வேதிமியல் துறை, அ.அ.அரசு கலைக் கல்லூரி,

தாமக்கல் - 637 001.

Head of the Department வேதியியல் துறை. அ.அ.வாக கலைக் கல்லூரி, 67106 ab - 637 001.

Submitted for the Viva Voce examination held on:

1) S. Mangayanlear -2) Sat 12/4/18. **EXAMINERS:** 

This is to certify that the project work dissertation entitled "AMINO FUCTIONALISED SILCA FOR THE ADSORPTIVE REMOVAL OF A TETILE DYE" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by S.DINESH KUMAR, Reg No: 16PCH1125 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Head of the Department

துகூறத் தகைவைப், வேதியியல் துறை, அஅசச கலைக் கல்லூரி, நாமக்கல் - 637 001.

Submitted for the Viva Voce examination held on:

Signature of the Guide

Dr.P. SIVAKUMAR, Ph.D., Assistant Professor / Chemistry Arignar Anna Govt. Arts College Namakkal - 637 002.

EXAMINERS: 1) S. Mangayarkarani 12/4/18.

2) Spring 12/4/18

This is to certify that the project work dissertation entitled "ADOSRPTIVE REMOVAL OF CONGO RED DYE USING FUNCTIONALISED NANO CARBON" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by K.SANTHOSHALAKSHMI, Reg No:16PCH1144 under my guidance supervision and I certify that this work is original and has not been submitted else where for any degree.

Head of the Department

grand ganari. வேதியியல் துறை, அ.அ.அரக கலைக் கல்லூரி, நாமக்கல் - 637 001.

Submitted for the Viva Voce examination held on:

Dr.P. SIVAKUMAR, Ph.D.,

Assistant Professor / Chemistry Arignar Anna Govt. Arts College Namakkal - 637 002.

1) S. Newgayarkarci 12/4/18. 2) Spring 12/4/18 **EXAMINERS:** 

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### CERTIFICATE

This is to certify that the project work dissertation entitled "SYNTHESIS AND APPLICATIONS OF NANO CuO BY SOL-GEL PROCESS" submitted in partial fulfillment of the degree of MASTER OF SCIENCE IN CHEMISTRY of the ARIGNAR ANNA GOVERNMENT ARTS COLLEGE NAMAKKAL, is bonafied record of the project work carried out by S.SATHYAMOORTHI, Reg No: 16PCH1135 under my guidance and supervision and I certify that this work is original and has not been submitted else where for any degree.

Head of the Department

வேசியியல் துறை, Malaga sans signa, நூமக்கல் - 637 001.

Submitted for the Viva Voce examination held on:

Dr.P. SIVAKUMAR, Ph.D., Assistant Professor / Chemistry Arignar Anna Govt. Arts College Namakkal - 637 002.

**EXAMINERS:** 

S. Mangayarherr a. 12/4/18.

2)

This is to certify that dissertation entitled "INHIBITION EFFECT OF BENZAMIDE ON CORROSION OF MILD STEEL IN ACID MEDIUM" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of the Periyar University in partial fulfillment of the requirements for the award of the degree of the Periyar University in Partial fulfillment of the requirements for the award of the degree of the Periyar University is a record of original work done by R.

MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by R.

RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & Research PG RAMKI(16PCH1132) during the period 2017-2018 of his study in the PG & RESEARCH PG RAMKI(16P

H- Amt. 1/04/18

Signature of the Guide

P. SANKUDEVAN, M.Sc., M.Phil.,

PG & Research Department of Chemistry, Arignar Anna Govt. Arts College,

NAMAKKAL - 637 002. Tamil Nadu. India.

Place : Namakkal

Date: 1/04/18

Head of the Department

து வார்த் த**்கைவர்,** வேறியியல் துறை, அ.அ.அரசு கலைக் கல்லூ**ரி,** நாயக்கல் - 637 001.

Project work evalution viva-voce examination held on

**Examiners**:

1. S. Neugayorkar. 12/4/18.

2. H. fort: 12/4/18

This is to certify that dissertation entitled "SYNTHESIS, IR SPECTRAL CHARACTERIZATION, ANTIBACTERIAL AND ANTIFUNGAL STUDIES OF (E)-N'-(4-CHLOROBENZYLIDENE) FORMOHYDRAZIDE" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by Ms. S. SIVAKAMI (16PCH1142) during the period 2017-2018 of her study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal 637 002, Tamil Nadu, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

M. Aunt. 11/04/18

PSANKUDEVAN, M.Sc., M.Phil.,
Assistant Professor,
PG & Research Department of Chemistry,
Arignar Anna Govt. Arts College,
NASIAKKAL - 637 002. Tamil Nadu. India.

Head of the Department

வேதியியல் இறை. அ.அ.அரக கலைக் கல்லூரி, தாமக்கல் - 637 001.

Project work evaluation viva-voce examination held on. 12. 14-18

Examiners:

S. mangayankanai 18/4/18. H. Front 12/4/18

This is to certify that dissertation entitled "Crystal growth and characterization of Nonlinear Optical L-Tryptophan doped Cadmium Chloride" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by C.N.Suvetha (16PCH1143) during the period 2017-2018 of her study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal - 637002, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

Signature of the Guide Dr. M.GOVINDARAJU,

Assistant Professor
PG & Research Department of Chemistry
Arignar Anna Government Arts College
Namakkal - 637 002.

Head of the Department

துறைத் தமைவர். வேதிலியல் துகை அ.அ.அரசு கலைக் கல்லூரி நாயக்கல் - 637 001.

Submitted for the viva-voice examination held on :  $|2| \circ |2| \sim 20$ 

**Examiners:** 

S. No gayarbara: 12/4/18.

H. offi

This is to certify that dissertation entitled "STUDIES ON THE REMOVAL OF IMPURITIES FROM SAGO INDUSTRY WASTEWATER BY USING EUPHORBIA TORTILIS STEM ACTIVATED CARBON"submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by Mr. A. NAVEENKUMAR[Reg. No: 16PCH1130] during the period 2017-2018 of his study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal 637 002, Tamil Nadu, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

81/4/2 was son Signature of the Guide

Dr. P. THAMILARASU, M.Sc., M.Phil., Ph.D., Assistant Professor,

PG & Research Department of Chemistry, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002.

Head of the Department வேதியியல் துறை,

R

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அ.அ.அரக கலைக் கல்லூரி, தாமக்கல் - 637 001.

Submitted for the viva-voce examination held on: 121918

#### Examiners:

. S. Mangayanker c.; 12/4/18. ... May 12/4/8.

This is to certify that dissertation entitled "CORROSION INHIBITION EFFECT OF AN AZO DYE DERIVATIVE OF 3-[(E)-(2-NITRO PHENYL) DIAZENYL|PENTANE -2,4 -DIONE (3NPDP) ON MILD STEEL IN ACIDIC SOLUTION: DFT STUDY" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by R.Prabu(Register No: 16PCH1137) during the period 2017-2018 of her study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal, Tamil Nadu- 637002, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

M. 97 11 4/18 Signature of the Guide

Dr. M.GOVINDARAJU,

**Assistant Professor** PG & Research Department of Chemistry Arignar Anna Government Arts College Namakkal - 637 002.

Place: Namakkal

Date : 11) 77) 78

Submitted for the viva-voce examination held on:

12/4/18.

வேடுயியல் துறை,

அ.அ. அரசு கலைக் கல்லுக்,

நாமக்கல் - 637 001.

Examiners

S. Mangayorkar 12/4/18.
M. Jyn 12/4/18.

This is to certify that dissertation entitled "SYNTHESIS, SPECTRAL CHARACTERIZATION AND ANTIMICROBIAL ACTIVITY OF (E)-N-AMINO-N'-p-TOLYFORMAMIDINE" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by R.MEENA (16PCH1139) during the period 2017-2018 of her study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal 632 002, Tamil Nadu, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

Signature of the Guide

P. SANKUDEVAN, M.Sc., M.Phil.,

Assistant Professor,
PG & Research Department of Chemistry,
Arignar Anna Govt. Arts College,
NAMAKKAL - 637 002. Tamil Nadu. India.

Head of the Department

வேதியியல் துறை,

அ.அ.அரசு கலைக் கல்லூரி, நாமக்கல் - 637 001.

Project work evaluation viva-voce examination held on 12/4/18

**Examiners:** 

S. Mangayarkare. 12/4/18 H. farmat 12/4/18

This is to certify that dissertation entitled "REMOVAL OF TOTAL DISSOLVED SOLIDS OF BORE WELL WATER USING VIGNA VNGUICULATA SEED SHELLS ACTIVATED CARBON" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by Mr. S. GOWTHAM [Reg. No: 16PCH1126] during the period 2017-2018 of his study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal 637 002, Tamil Nadu, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any

Signature of the Guide

Dr. P. THAMILARASU, M.Sc., M.Phil., Ph.D., Assistant Professor,

PG & Research Department of Chemistry, Arignar Arts College,

NAME - 100 2 607 602.

வேதியியல் துறை, அ.அ.அரச கலைக் கல்லாசி, நாயக்கல் - 637 001.

Submitted for the viva-voce examination held on: 12/4/18

Examiners:

1. S. Mangayarhare 12/4/18

This is to certify that dissertation entitled "Synthesis, characterization and experimental, biological studies of a new Schiff base Cu (II) complex" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by K.Kalki ( reg no : 16PCH1127) during the period 2017-2018 of his study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal, Tamil Nadu - 637002, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

Signature of the Guide

Dr. M.GOVINDARAJU,
Assistant Professor
PG & Research Department of Chemistry
Arignar Anna Government Arts College
Namakkal - 637 002.

Head of the Department

வேதியியல் இறை,

அ.அ.அரசு கலைக் கல்லூரி, தாமக்கல் - 637 001.

Submitted for the viva voce Examination heldon. 12.14/18

**Internal Examier** 

M. 4/12/4/18

**External Examiner** 

S. Newgayar har = 12/4)18

that dissertation entitled to certify "ONE-POT MULTICOMPONENT SYNTHESIS, SPECTRAL CHARACTERIZATION AND BIOLOGICAL EVALUATION OF DIETHYL 4-HYDRAZINYL-1.4-DIHYDRO-2,6-DIMETHYLPYRIDINE-3,5-DICARBOXYLATE" submitted to the Periyar University in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN CHEMISTRY is a record of original work done by R. DEENADEVI (16PCH1138) during the period 2016-2018 of her study in the PG & Research Department of Chemistry, Arignar Anna Government Arts College, Namakkal 632 002, Tamil Nadu, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Fellowship / Associate ship or other similar titles to any candidate of any University.

Signature of the Guide

Dr. P. THAMILARASU, M.Sc., M.Phil., Ph.D.,
Assistant Professor,
PG & Research Department of Chemistry

PG & Research Department of Chemistry, Arignar Anna Govt. Arts College, NAMAKKAL - 637 002. Head of the Department

வேதியியல் துறை, அ.அ.அரச கலைக் கல்லூரி, நாயக்கல் - 637 001.

Submitted for the Viva-voce examination held on.....

EXAMINERS: 1.

S. Mengayankar 18

2. Orom 1274/18