

DEPARTMENT OF CHEMISTRY
PACIFIC ACADEMY OF HIGHER EDUCATION AND
RESEARCH UNIVERSITY, UDAIPUR

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Professor

CERTIFICATE

It gives me immense pleasure in certifying that the thesis entitled “**SYNTHESIS OF SOME NITROGEN CONTAINING HETEROCYCLIC COMPOUNDS AND THEIR ANTIMICROBIAL ACTIVITIES**” submitted by **DODIA PRAVINSINH BHUPATSINH** is based on the research work carried out under my guidance. He has completed the following requirements as per Ph.D. regulations of the University;

- (i) Course work as per University rules.
- (ii) Residential requirements of the University.
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Professor

CERTIFICATE

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DECLARATION

I, **DODIA PRAVINSINH BHUPATSINH S/o Mr. BHUPATSINH DODIA** resident of **Gujarat** hereby declare that the research work incorporated in the present thesis entitled **“SYNTHESIS OF SOME NITROGEN CONTAINING HETEROCYCLIC COMPOUNDS AND THEIR ANTIMICROBIAL ACTIVITIES”** is my original work. This work (in part or in full) has not been submitted to any University for the award or a Degree or a Diploma. I have properly acknowledged the material collected from secondary sources wherever required. I solely own the responsibility for the originality of the entire content.

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Place:

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Date :
Place:

(DODIA PRAVINSINH BHUPATSINH)

PREFACE

Nitrogen containing heterocycles have always played a major role in the pharmaceutical and agrochemical industries, because of their potent physiological properties, which have resulted in numerous applications. Pyrimidine and their derivatives are building block for around more than 150 naturally occurring alkaloids isolated from plant kingdom, microorganisms and animals. There has been an enormous increase in the interest among biologists and chemists in the synthesis and bioactivity of pyrimidine derivatives.

The present work planned has been in following manner.

- Detail literature survey will be carried out on research already done in Pyrimidine derivatives.
- Novel chalcones compounds by simple available starting materials will be synthesized.
- The scope of the novel protocol for synthesizing a good library of pyrimidine derivatives will be assessed.
- All the synthesized compounds will be characterized by ^1H NMR, ^{13}C , NMR, IR, and MASS spectroscopic techniques.
- Synthesized compounds will be tested for its antimicrobial activity against gram +ve and gram -ve bacteria.

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CONTENTS

CHAPTER-I	INTRODUCTION	01 – 18
	REFERENCES	19 - 24
CHAPTER-II	REVIEW OF LITERATURE	25– 45
	REFERENCES	46 - 62
CHAPTER-III	SYNTHESIS AND CHARACTERIZATION OF CHALCONES	63 – 101
CHAPTER-IV	SYNTHESIS AND CHARACTERIZATION OF PYRIMIDINES	102 – 137
CHAPTER-V	SYNTHESIS AND CHARACTERIZATION OF PYRIMIDINES	138 – 174
CHAPTER-VI	ANTIMICROBIAL ACTIVITY	175 – 184
	SUMMARY	185 - 187
	PUBLICATIONS	-