TABLE OF CONTENTS

THESIS APPROVAL ii
THESIS ORIGINALITY STATEMENT iii
ABSTRACT v
ABSTRAK vi
PREFACE vi
TABLE OF CONTENTS xii
CHAPTER I INTRODUCTION 1
1.1 Background 1
1.2 Research Question 14
1.3 Research Objectives and Significance 15
1.3.1 Research Objectives 15
1.3.2 Research Benefits 15
CHAPTER II LITERATURE REVIEW 17
2.1 Theoretical Framework 17
2.1.1 Classical Economic Growth Theory 17
2.1.2 Neoclassical Economic Growth Theory 19
2.1.3 Endogenous Growth Theory (Romer) 23
2.1.4 Economic Growth 24
2.1.5 Education 29
2.1.6 Labor Force 31
2.1.7 Energy Consumption 33
2.2 Relationships Among Variables 35
2.2.1 Investment and Economic Growth 35
2.2.2 Education and Economic Growth 37
2.2.3 Labor Force and Economic Growth 38
2.2.4 Energy Consumption and Economic Growth 40
2.3 Previous Research 41
2.4 Conceptual Framework 45
2.5 Research Hypotheses 47
CHAPTER III RESEARCH METHOD 48
3.1 Research Variables and Operational Definitions of Variables 48
3.1.1 Research Variables 49

3.2 Observation 51
3.3 Types and Sources of Data 51
3.4 Data Collection Methods 52
3.5 Data Analysis Methods 52
3.5.1 Empirical Model 53
3.5.2 Selection of the Best Model 55
3.5.3 Classical Assumption Test 58
3.5.4 Coefficient of Determinan 61
3.5.5 Hypothesis Testing 61
CHAPTER IV RESULTS AND DISCUSSION 64
4.1 Research Results 64
4.1.1 Descriptive Statistical Analysis 64
4.1.2 Selection of the Best Model 67
4.1.3 Classical Assumption Tests 70
4.1.4 Hypothesis Testing 75
4.1.5 Panel Data Regression Analysis 82
4.2 Discussion 84
4.2.1 The Effect of Investment on Economic Growth in Central Java Province, 2021–2024 84
4.2.2 The Impact of Education on Economic Growth in Central Java Province, 2021–2024 88
4.2.3 The Impact of the Labor Force on Economic Growth in Central Java Province for 2021–2024 92
4.2.4 The Impact of Energy Consumption on Economic Growth in Central Java Province, 2021–2024 97
4.2.5 The Impact of Investment, Education, Labor, and Energy Consumption on Economic Growth in Central Java Province for 2021–2024 101
CHAPTER V CONCLUSION 106
5.1 Conclusion 106
5.2 Recommendations 106
REFERENCES 110
APPENDIX 113