PROPERTIES OF PARTICLE BOARD FROM BAGASSE (*Saccharum officinarum L*) MIX WITH UNKNOWN SPECIES OF WOOD WASTE IN RELATION TO WOOD RATIO AND RESIN

NORSYAZANA BINTI JASNI

This Final Year Project Submitted in Partial Fulfillment of the Requirements for the Bachelor of Science (Hons.) Furniture Technology in the Faculty of Applied Sciences, Universiti Teknologi MARA

JULY 2017

CANDIDATE'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations on Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledge as reference work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

In the event that my thesis is found to violet the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree to subjected to the disciplinary rules and regulation or Universiti Teknologi MARA.

Signature of Candidate	: 
Name of candidates	: NorSyazana Binti Jasni
Candidate's ID	: 2015896266
Programme	: Bachelor of Science (Hons) in Furniture Technology Applied Science
Faculty	: Applied Sciences
Thesis title	**:Properties of Particleboard from Bagasse (*Saccharum officinarum L*) Mix with Unknown Species of Wood in Relation to Wood Ratio and Resin.**
Date	:JULY 2017

ABSTRACT

PROPERTIES OF PARTICLEBOARD FROM BAGASSE (*Saccharum officinarum L*) MIX WITH UNKNOWN SPECIES OF WOOD IN RELATION TO WOOD RATIO AND RESIN

Properties of particleboard from bagasse (Saccharum officinarum L) mix with unknown species of wood in relation to wood ratio and resin content bounded with phenol formaldehyde has been studied. The particle board manufacturing were made with four ratio 100 bagasse and 60: 40 by mix with different resin content 9% and 11%. The boards produced were evaluated for its bending test (BS), internal bond (IB), water absorption (WA) and thickness swelling (TS) according to European Standard. The measurement of bending test used in this study is 350mm × 50mm × 12mmand for IB, WA, TS 50mm × 50mm. By using ratio 60 bagasse and 40 wood waste the board strength is good. The higher percentage of resin content will produce the better of particleboard properties. This study finds Bagasse can be the alternative new raw material in manufacturing of composite panel product because it can replace the wood in producing particle boards.

TABLE OF CONTENTS