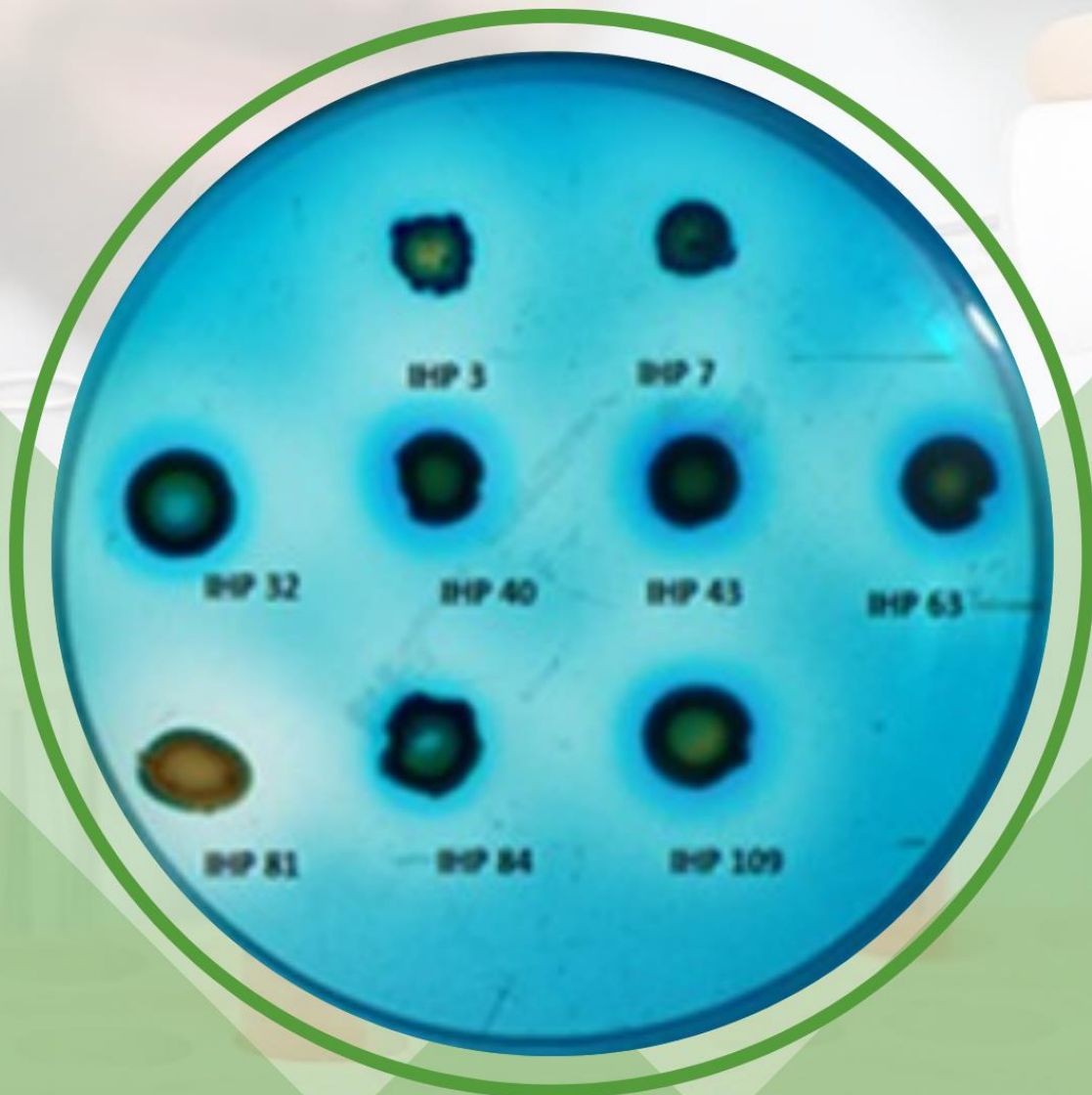




PRACTICAL MODULE MICROBIAL PHYSIOLOGY

**BACHELOR OF BIOLOGY
FACULTY OF MATHEMATICS AND NATURAL SAINS
UNIVERSITY OF JEMBER**



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PRACTICAL MODULE
MICROBIAL PHYSIOLOGY

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FOREWORD

Microbial physiology encompasses a diverse array of topics that are essential for comprehending the interactions of microorganisms with their environment and with one another. This field not only includes fundamental theoretical concepts but also extends to practical applications relevant to various sectors, including agriculture, health, and industry. Through the hands-on experience gained in laboratory settings, you will enhance your theoretical knowledge while acquiring the laboratory techniques necessary for microbiological research.

Moreover, this experiential learning enables you to observe and analyze various phenomena associated with microbial growth and metabolism. Key processes such as carbohydrate fermentation, nitrate and hydrogen peroxide reduction, and the production of hydrogen sulfide and ammonia by bacteria will be examined in depth. By gaining insights into microbial growth patterns and the abiotic and biotic factors that influence these patterns, you will be better equipped to understand the intricate relationships between microorganisms and their environments. Consequently, achieving proficiency in this material is vital for preparing you to tackle the challenges that lie ahead in microbiological research and its applications.

Jember, 30th November 2024

Author Team

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