CONTENTS

List of Tables
List of Figures
List of Photographs
List of Annexures
List of Abbreviations
Abstract

PART I MARKET RESEARCH AND CONSUMER BEHAVIOUR

CHAPTER 1: INTRODUCTION 1-3
1.1 Market Research 1
1.2 Consumer Behaviour 1-3

CHAPTER 2: SCOPE 4-7
2.1 Aims and Objectives 4-5
2.2 Research Methodology 5
2.3 Coverage 5
2.4 Sampling Plan 5-6
2.5 Time Frame 6
2.6 Limitations 6
2.7 Hypothesis 6-7
2.8 Deliverables 7

CHAPTER 3: REVIEW OF LITERATURE 8-18
3.1 Global Market Scenario 8-10
3.2 Indian Market Scenario 10-12
3.3 Market and Product Segmentation 12-13
3.4 Consumption Patterns and Trends 14-15
3.5 Demand: Past, Present, Future 15-18
3.6 Cosmeceutical Global Trends 18
PART II  EXPERIMENTAL RESEARCH

CHAPTER 1: INTRODUCTION

1.1 Cosmetics, Drugs and Cosmeceuticals
   1.1.1 Definition of Cosmetics and Drugs 41
   1.1.2 History of Cosmetics 41-44
   1.1.3 Emergence of Cosmeceuticals 45-46
      1.1.3.1 Cosmeceutical Categories – Skin and Hair Cosmeceuticals
      1.1.3.2 Ayurveda and Cosmeceuticals

1.2 Aging
   1.2.1 Definitions of Aging
      1.2.1.1 Modern Perspective 46-47
      1.2.1.2 Ayurvedic Perspective 47
   1.2.2 Theories of Aging
      1.2.2.1 Modern Perspective 47-48
      1.2.2.2 Ayurvedic Perspective 49-50
   1.2.3 Skin Aging
      1.2.3.1 Modern Perspective 50-51
      1.2.3.2 Ayurvedic Perspective 51-53
   1.2.4 Wrinkles 53-54
   1.2.5 Anti-aging Approaches
      1.2.5.1 Modern Perspective
         1.2.5.1.1 Concepts 54-57
         1.2.5.1.2 Anti-aging Therapies 57-61
      1.2.5.2 Ayurvedic Perspective
CHAPTER 2: REVIEW OF LITERATURE 65-81
2.1 Study Materials
2.1.1 Cow Ghee 65-68
2.1.2 Flax seed Oil 68-69
2.1.3 Amalaki Fruit Extract 69-70
2.1.4 Shorea robusta Resin 70-71
2.1.5 Yashada bhasma 71-72
2.2 Methods of Evaluation of Topical Anti-aging Agents / Products
2.2.1 In-vitro Methods
2.2.1.1 Antioxidant Activity 72-75
2.2.1.2 Enzyme Inhibition Activity 75-77
2.2.2 In-vivo Methods
2.2.2.1 Skin Hydration / Moisture Content Study 78-80
2.2.2.2 Skin Elasticity / Viscoelastic Parameters Study 80
2.2.2.3 Wrinkle Reduction Study 80
2.2.2.4 Photodamage Study 80-81
2.2.2.5 Wound Healing Study 81

CHAPTER 3: MATERIALS AND METHODS 82-120
3.1 Procurement and Authentication of Study Material 82
3.1.1 Chemicals and Reagents 82
3.1.2 HPTLC 82-83
3.1.3 Physicochemical Analysis 83-91
3.1.4 EFA Content (Omega 3 and Omega 6) Estimation by GC 91-93
3.1.5 Phytochemical Investigations 93-95
3.2 In-vitro Studies
3.2.1 Antioxidant Activity
3.2.1.1 DPPH Radical Scavenging Activity 96
3.2.1.2 Nitric Oxide Radical Scavenging Activity 97
3.2.1.3 Oxygen Radical Absorbance Capacity Assay
3.2.1.4 Reducing Power
3.2.1.5 In-Vitro Lipid Peroxidation

3.2.2 Enzyme Inhibition Activity
3.2.2.1 Elastase Inhibition Activity
   3.2.2.1.1 Insoluble Elastin Method
   3.2.2.1.2 SANA Method
3.2.2.2 Hyaluronidase Inhibition Activity
3.2.2.3 Tyrosinase Inhibition Activity

3.3 Developing Topical Anti-aging Formulations
3.3.1 Preparation and Standardization of Shorea robusta Extract in Flax seed Oil
3.3.2 Formulating Anti-aging Creams
3.3.3 Stability studies of the Formulated Creams

3.4 In-vivo Studies
3.4.1 Dermal Irritation/ Corrosion/ Toxicity Studies
3.4.2 Wound Healing Activity
   3.4.2.1 Excision Wound Model
   3.4.2.2 Incision Wound Model
3.4.3 Anti-wrinkle Activity

CHAPTER 4: RESULTS AND DISCUSSION
CHAPTER 5: LIMITATIONS AND RECOMMENDATIONS
OVERALL CONCLUSIONS
BIBLIOGRAPHY
ANNEXURES