## Contents

### Section 1: Midwifery

1. **Historical Review** ............................................................................................................ 3
2. **Development of Maternity Services and Current Trends** ........................................... 5
   - Current Trends 7
3. **The Midwife** .................................................................................................................. 11
   - Development of Midwifery Education in India 12
4. **The Nursing Process in Maternal Newborn Care** ....................................................... 14
   - The Five Phases of Nursing Process 14
     - Diagnosis 17
     - Planning 24
     - Nursing Interventions 28
     - Implementing 30
     - Evaluating 32

### Section 2: Reproductive System

5. **The Female Pelvis and Generative Organs** ................................................................. 37
   - Pelvis 37
     - Types of Pelvis 41
     - Other Pelvic Variations 43
     - Generative Organs 45
6. **Hormonal Cycles** ......................................................................................................... 52
   - The Ovarian Cycle 52
   - Menstrual Cycle 54
7. **The Male Reproductive System** .................................................................................... 56

### Section 3: Embryology and Fetology

8. **Fertilization, Implantation and Development of the Fertilized Ovum** ...................... 61
   - Fertilization 61
   - Implantation 62
   - Development of the Fertilized Ovum 63
9. **Development of the Placenta and Fetus** ...................................................................... 65
   - Development of the Placenta 65
   - Development of the Fetus 72
10. **Fetal Organs and Fetal Circulation** .............................................................................. 76
   - Fetal Organs 76
11. **The Fetal Skull** ............................................................................................................ 80
Section 4: Normal Pregnancy

12. Physiological Changes due to Pregnancy ........................................... 87
   Changes in the Reproductive System 87
   Changes in the Cardiovascular System 89
   Changes in the Respiratory System 91
   Changes in the Urinary System 92
   Changes in the Gastrointestinal System 92
   Changes in Metabolism 93
   Changes in the Endocrine System 95

13. Diagnosis of Pregnancy ........................................................................... 98

14. Minor Disorders in Pregnancy .............................................................. 102
   Digestive System 102
   Musculoskeletal System 103
   Genitourinary System 103
   Circulatory System 104
   Integumentary System 104
   Nervous System 104
   Disorders that Require Immediate Action 105

15. Antenatal Care ...................................................................................... 106
   Antenatal Visits 106
   The Initial Examination 106
   Present Pregnancy 107
   Physical Examination 108
   Inspection 110
   Abdominal Palpation and Leopold’s Maneuvers 112
   Nursing Process for the Antenatal Mother 121

16. Specialized Investigations and Fetal Evaluation in the Antenatal Period .. 124
   Ultrasonography 124
   Amniocentesis and Amniotic Fluid Studies 125
   Alpha-fetoprotein (AFP) Testing 127
   Amnioscopy and Fetoscopy 127
   Estriol Level Determination 127
   Fetal Blood Sampling (Cordocentesis) 128
   Fetal Evaluation Procedures 128

Section 5: Normal Labor

17. Physiology of the First Stage of Labor ............................................... 133
   Stages of Labor 133
   Physiological Processes in the First Stage of Labor 138
   Initial Assessment and Diagnosis 141

18. Management of the First Stage of Labor ............................................ 147
   Admission to Labor and Delivery Unit 147
   Continuing Care and Evaluation 151
   Partograph 157
   Nursing Process during the First Stage of Labor 164

19. Physiology of the Second Stage of Labor ............................................ 166
   Physiological Processes 166
   Presumptive Signs of Second Stage and Differential Diagnosis 167
### Section 6: The Normal Puerperium

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>M aternal Physiological Changes in the Second Stage</td>
<td>167</td>
</tr>
<tr>
<td>T he M echanism of Normal Labor</td>
<td>168</td>
</tr>
<tr>
<td>S ummary of M echanisms in Left O cciput A nterior (LOA) Position</td>
<td>171</td>
</tr>
<tr>
<td>F etal N ormality during the Second Stage</td>
<td>172</td>
</tr>
<tr>
<td>D uration of the Second Stage</td>
<td>172</td>
</tr>
<tr>
<td><strong>20. Management of the Second Stage of Labor</strong></td>
<td>173</td>
</tr>
<tr>
<td>E valuation of M aternal W ell-being</td>
<td>173</td>
</tr>
<tr>
<td>E pisiotomy</td>
<td>175</td>
</tr>
<tr>
<td>E valuation of the F etal W ell-being</td>
<td>177</td>
</tr>
<tr>
<td>E valuation of the Progress of Labor</td>
<td>177</td>
</tr>
<tr>
<td>B odily and Supportive Care of the W oman</td>
<td>178</td>
</tr>
<tr>
<td>P reparation for D elivery</td>
<td>179</td>
</tr>
<tr>
<td>C onducting the D elivery</td>
<td>180</td>
</tr>
<tr>
<td>N ursing P rocess during the Second Stage of Labor</td>
<td>182</td>
</tr>
<tr>
<td><strong>21. Physiology and Management of the Third Stage of Labor</strong></td>
<td>184</td>
</tr>
<tr>
<td>P hysiological Processes of P laceental Separation and Expulsion</td>
<td>184</td>
</tr>
<tr>
<td>M anagement of the Third Stage of Labor</td>
<td>186</td>
</tr>
<tr>
<td>U se of O xytocic A gents</td>
<td>189</td>
</tr>
<tr>
<td>F undal H eight during Third Stage</td>
<td>190</td>
</tr>
<tr>
<td>C ompletion of the Third Stage</td>
<td>190</td>
</tr>
<tr>
<td>C omplications of the Third Stage</td>
<td>191</td>
</tr>
<tr>
<td>N ursing P rocess during the Third Stage</td>
<td>195</td>
</tr>
<tr>
<td><strong>22. Management of the Fourth Stage of Labor</strong></td>
<td>196</td>
</tr>
<tr>
<td>E valuation and I nspection</td>
<td>196</td>
</tr>
<tr>
<td>C ontinuing C are and M onitoring</td>
<td>198</td>
</tr>
<tr>
<td>U se of O xytocic D rugs</td>
<td>201</td>
</tr>
<tr>
<td>N ursing P rocess during the Fourth Stage of Labor</td>
<td>202</td>
</tr>
<tr>
<td><strong>23. Physiology and Management of the Normal Puerperium</strong></td>
<td>207</td>
</tr>
<tr>
<td>D uration</td>
<td>207</td>
</tr>
<tr>
<td>A natomical and Physiological Changes of the Puerperium</td>
<td>207</td>
</tr>
<tr>
<td>G eneral Physiological Changes</td>
<td>210</td>
</tr>
<tr>
<td>M anagement of Early Puerperium</td>
<td>212</td>
</tr>
<tr>
<td>C ontinuing Physical A ssessment and D aily C are</td>
<td>215</td>
</tr>
<tr>
<td>O ther A ssessments</td>
<td>220</td>
</tr>
<tr>
<td>D iscomforts of the Puerperium and R elief M easures</td>
<td>223</td>
</tr>
<tr>
<td>B reastfeeding D ifficulties and M anagement</td>
<td>225</td>
</tr>
<tr>
<td>N ursing P rocess during the Puerperium</td>
<td>227</td>
</tr>
<tr>
<td><strong>24. Family Planning</strong></td>
<td>230</td>
</tr>
<tr>
<td>M agnitude of the Problem</td>
<td>230</td>
</tr>
<tr>
<td>F amily Planning</td>
<td>230</td>
</tr>
<tr>
<td>B asic H uman R ights</td>
<td>231</td>
</tr>
<tr>
<td>M ethods of C ontraception</td>
<td>233</td>
</tr>
<tr>
<td>N atural C ontraception</td>
<td>235</td>
</tr>
<tr>
<td>I ntrauterine C ontraceptive D evices (IUDs)</td>
<td>237</td>
</tr>
<tr>
<td>H ormonal C ontraceptives</td>
<td>242</td>
</tr>
<tr>
<td>C lassification of H ormonal C ontraceptives</td>
<td>242</td>
</tr>
</tbody>
</table>
Section 7: Abnormalities of Pregnancy, Labor and Puerperium

25. Abnormalities of Early Pregnancy

Classification of Abortion 255
Abortion 255
Spontaneous Abortion 256
Induced Abortion 258
Nurses’ Role with Patients Undergoing Abortion 260
Nursing Process for Clients with Abortion 261
Ectopic Pregnancy/Ectopic Gestation 262
Nursing Process for Clients with Ectopic Pregnancy 264
Hydatidiform Mole 265
Nursing Process for Clients with Hydatidiform Mole 266
Hyperemesis Gravidarum 267
Summary of Nursing Process for Clients with Hyperemesis 268
Rh Isoimmunization and ABO Incompatibility 268
Retroversion of the Gravid Uterus 269

26. Sexually Transmissible and Reproductive Tract Infections

Extent of the Problem in India 271
Local Infections of the Vaginal and Vulva 274
Fungal Infections 274
Protozoal Infections 275
Bacterial Infections 275
Group B Streptococcus 276
Viral Infections 278
Nursing Process for Pregnant Women with Acquired Immunodeficiency Syndrome 283

27. Disorders of Pregnancy

Antepartum Hemorrhage 285
Placenta Previa 285
Summary of Nursing Process 287
Abruptio Placentae 288
Summary of Nursing Process 290
Disseminated Intravascular Coagulation (DIC) 290
Disorders of the Amniotic Fluid 292

28. Hypertensive Disorders of Pregnancy

Pregnancy Induced Hypertension 295
Pre-eclampsia 295
Eclampsia 302
Summary of Nursing Process 305
Gestational Hypertension 306
Chronic Hypertension in Pregnancy 306
Essential Hypertension in Pregnancy 307

29. Medical Disorders Associated with Pregnancy

Summary of Nursing Process for Pregnant Women with Hypertension 308
Cardiac Disease 310
Summary of Nursing Process 314
Respiratory Disorders 315
Contents

Diabetes Mellitus 316
Thyroid Dysfunction in Pregnancy 321
Hyperthyroidism 321
Hypothyroidism 322
Anemia in Pregnancy 323
Iron Deficiency Anemia 325
Folic Acid Deficiency Anemia (Megaloblastic Anemia) 328
Vitamin B12 Deficiency 328
Hemoglobinopathies 328
Sickle Cell Disorders 329
Thalassemia Syndromes 330
Asymptomatic Bacteriuria 331
Acute Pyelonephritis 331
Chronic Renal Disease 332
Systemic Lupus Erythematosus (SLE) 332
Idiopathic Thrombocytopenic Purpura (ITP) 334

30. Multiple Pregnancy ................................................................. 336
   Incidence 336
   Twin Pregnancy 336

31. Preterm Labor, Premature Rupture of Membranes and
   Intrauterine Fetal Death .......................................................... 346
   Preterm Labor 346
   Premature Rupture of Membranes (PROM) 348
   Intrauterine Fetal Death (IUD) 350

32. Post-term Pregnancy, Induction of Labor, Prolonged Labor and Disorders
   of Uterine Action ................................................................. 353
   Post-term Pregnancy 353
   Induction of Labor 355
   Prolonged Labor 360
   Disorders of Uterine Action 363

33. Malpositions and Malpresentations ........................................... 369
   Occipito-posterior Position 369
   Face Presentation 371
   Brow Presentation 374
   Breech Presentation 375
   Shoulder Presentation 381
   Compound Presentation 382
   Shoulder Dystocia 382
   Unstable Lie 384

34. Obstetric Operations .............................................................. 386
   Dilatation and Evacuation 386
   Forceps Delivery 388
   Vacuum Extraction (Ventouse Delivery) 393
   Cesarean Section 396
   Destructive Operations (Embryotomies) 399

35. Obstetric Emergencies ............................................................ 403
   Vasa Previa 403
   Presentation and Prolapse of the Umbilical Cord 403
   Dystocia Caused by Fetal Anomalies 406
   Amniotic Fluid Embolism 408
36. Complications of Third Stage of Labor ................................................................. 414
    Postpartum Hemorrhage 414
    Management of Primary Postpartum Hemorrhage 419
    Secondary Postpartum Hemorrhage 420
    Retained Placenta 421
    Placenta Accreta 422
    Inversion of the Uterus 423

37. Injuries to the Birth Canal ................................................................................... 426
    Lacerations of Perineum 426
    Pelvic Hematomas 428
    Rupture of the Uterus 429
    Visceral Injuries 430

38. Complications of Puerperium ............................................................................. 432
    Puerperal Pyrexia 432
    Puerperal Sepsis 432
    Nursing Process for Mothers with Puerperal Sepsis 435
    Subinvolution of the Uterus 436
    Breast Complications 436
    Venous Thrombosis 438
    Pulmonary Embolism 439
    Psychological Disturbances in the Puerperium 440

Section 8: The Normal Neonate

39. The Baby at Birth .................................................................................................... 445
    Extrauterine Adaptation 445
    Immediate Care of the Baby at Birth 447
    Normal Characteristics and Physical Features of a Healthy Newborn 449
    Initial Assessment of the Newborn 450
    Resuscitation of the Newborn 455

40. Physiology, Screening, Daily Care and Observation of the Newborn ............ 461
    Physiology 461
    Physical Examination (Screening) 467
    Gestational Age Assessment 468
    Daily Care and Observation of the Newborn 471

41. Infant Feeding ....................................................................................................... 473
    The Breasts and Lactation 473
    Properties and Components of Breast Milk 474
    Management of Breastfeeding 475
    Food Used 483

42. The Low Birthweight Baby, The Preterm Baby and Intrauterine Growth Retarded Baby ............................................................ 485
    Incidence of Low Birthweight 485
    Small for Gestational Age Term Infant 486
    Intrauterine Growth Retardation (IUGR) 492

Section 9: The III Baby

43. Recognizing the III Baby ..................................................................................... 497
    Assessment of Gestational Age 497
    Warning Signs 498
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.</td>
<td><strong>Respiratory Problems of the Newborn</strong></td>
<td>505</td>
</tr>
<tr>
<td></td>
<td>Anatomy and Physiology of the Respiratory System</td>
<td>505</td>
</tr>
<tr>
<td></td>
<td>Clinical Signs of Respiratory Problems</td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>Causes of Respiratory Problems</td>
<td>506</td>
</tr>
<tr>
<td></td>
<td>Principles of Caring for a Baby with Respiratory Problems</td>
<td>510</td>
</tr>
<tr>
<td>45.</td>
<td><strong>Birth Trauma, Hemorrhage and Convulsions</strong></td>
<td>513</td>
</tr>
<tr>
<td></td>
<td>Trauma during Birth</td>
<td>513</td>
</tr>
<tr>
<td></td>
<td>Hemorrhage</td>
<td>516</td>
</tr>
<tr>
<td></td>
<td>Prevention of Trauma in the Newborn</td>
<td>521</td>
</tr>
<tr>
<td></td>
<td>Convulsions in the Newborn</td>
<td>521</td>
</tr>
<tr>
<td>46.</td>
<td><strong>Congenital Abnormalities</strong></td>
<td>524</td>
</tr>
<tr>
<td></td>
<td>Causes of Congenital Abnormalities</td>
<td>524</td>
</tr>
<tr>
<td></td>
<td>Prenatal Genetic Counseling</td>
<td>525</td>
</tr>
<tr>
<td></td>
<td>Common Malformations and Syndromes</td>
<td>526</td>
</tr>
<tr>
<td></td>
<td>Abnormalities Related to Respiration</td>
<td>528</td>
</tr>
<tr>
<td></td>
<td>Congenital Cardiac Defects</td>
<td>528</td>
</tr>
<tr>
<td></td>
<td>Central Nervous System Abnormalities</td>
<td>529</td>
</tr>
<tr>
<td></td>
<td>Musculoskeletal Deforrmities</td>
<td>531</td>
</tr>
<tr>
<td></td>
<td>Abnormalities of the Urinary System</td>
<td>534</td>
</tr>
<tr>
<td></td>
<td>Commonly Occurring Syndromes</td>
<td>535</td>
</tr>
<tr>
<td>47.</td>
<td><strong>Jaundice and Infections in the Newborn</strong></td>
<td>537</td>
</tr>
<tr>
<td></td>
<td>Jaundice</td>
<td>537</td>
</tr>
<tr>
<td></td>
<td>Types of Jaundice</td>
<td>538</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>Hemolytic Diseases of the Newborn</td>
<td>543</td>
</tr>
<tr>
<td></td>
<td>Neonatal Infections</td>
<td>543</td>
</tr>
<tr>
<td></td>
<td>Infections Acquired before or during Birth</td>
<td>546</td>
</tr>
<tr>
<td></td>
<td>Infections Acquired after Birth</td>
<td>549</td>
</tr>
<tr>
<td>48.</td>
<td><strong>Metabolic and Endocrine Disorders in the Newborn</strong></td>
<td>552</td>
</tr>
<tr>
<td></td>
<td>Inborn Errors of Metabolism</td>
<td>552</td>
</tr>
<tr>
<td></td>
<td>Phenylketonuria (PKU)</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>Galactocemia</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>Glucose-6-phosphateD hydrogenase (G6PD ) D eficiency</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>Cystic Fibrosis</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>Endocrine Disorders</td>
<td>554</td>
</tr>
<tr>
<td></td>
<td>Congenital Hypothyroidism</td>
<td>554</td>
</tr>
<tr>
<td></td>
<td>Hypoglycemia</td>
<td>554</td>
</tr>
<tr>
<td></td>
<td>Hyperglycemia</td>
<td>555</td>
</tr>
<tr>
<td></td>
<td>Electrolyte imbalance</td>
<td>555</td>
</tr>
<tr>
<td></td>
<td>Hypernatremia</td>
<td>555</td>
</tr>
<tr>
<td></td>
<td>Hypotonatremia</td>
<td>556</td>
</tr>
<tr>
<td></td>
<td>Hypocalcemia</td>
<td>556</td>
</tr>
<tr>
<td></td>
<td>Hypercalcemia</td>
<td>556</td>
</tr>
<tr>
<td></td>
<td>Diarrhea in Newborn</td>
<td>556</td>
</tr>
<tr>
<td></td>
<td>Vomiting in Newborn</td>
<td>557</td>
</tr>
<tr>
<td></td>
<td>Causes of Vomiting</td>
<td>557</td>
</tr>
<tr>
<td></td>
<td>Drug or Substance Withdrawal</td>
<td>557</td>
</tr>
<tr>
<td></td>
<td>Neonatal Abstinence Syndrome (NAS) or Withdrawal Signs</td>
<td>557</td>
</tr>
<tr>
<td></td>
<td>Fetal Alcohol Syndrome (FAS)</td>
<td>558</td>
</tr>
</tbody>
</table>
Section 10: Community Midwifery

49. Preventive Obstetrics and Domiciliary Care in Maternity Nursing .......... 561
   Antenatal Care 561
   Intrapartum Care 565
   Postnatal Care 568

50. Primary Health Care in India ................................................................. 570
   Levels of Health Care 570
   Maternal and Child Health (MCH) Services 571
   Reproductive and Child Health Program (RCH) 574

Section 11: Special Topics

51. Pain Relief and Comfort in Labor .......................................................... 579
   Perception of Pain 579
   Causes of Pain 580
   Anaesthesia 582
   Nonpharmaceutical Methods of Pain Relief 585
   Positioning 586
   Hygiene and Comfort 587

52. Childbirth Education and Preparation ................................................... 588
   Natural Childbirth Approach 588
   Childbirth Preparation Program 588
   Goals of Educational Programs 589
   Methods of Childbirth Preparation 589
   Effectiveness of Prenatal Education 593
   Role of Coach or Support Person 594
   Role of the Childbirth Educator 594

53. Special Exercises for Pregnancy, Labor and Puerperium ....................... 596
   Postural Changes in Pregnancy 596
   Posture for Comfort in Different Positions 596
   Posture for Relief of Aches and Pains 598
   Antenatal Exercises 599
   Positions for Comfort during Labor 599
   Postnatal Exercises 600
   Exercises following Cesarean Section 602
   Immediate Postnatal Physical Problems 602

54. Drugs Used in Obstetrics ........................................................................ 604
   Oxytocics 604
   Antihypertensive Drugs 606
   Diuretics 610
   Tocolytic Agents 612
   Anticonvulsants 614
   Anticoagulants 616
   Analgesics 617
   Effects of Maternal Medications on Fetus and Breastfeeding Infants 619

55. Vital Statistics in Obstetrics .................................................................... 621
   Maternal Vital Statistics 622
   Maternal Mortality 622
   Maternal Morbidity 624
   Perinatal Mortality 625
CONTENTS

Stillbirths 626
Neonatal Mortality 626
Infant Mortality Rate (IMR) 626
Record Keeping 627

56. Perinatal Loss and Grief ................................................................. 629
   Loss, Grief and Mourning 629
   Grief Situations in the Perinatal Period 629
   The Nature of Perinatal Loss and Grief 630
   Phases of Mourning (Grieving) 630
   Helping Grieving Parents 631
   Caring for the Caregiver 632
   Nursing Process for the Client Experiencing a Loss 632

57. Radiology and Ultrasonics in Obstetrics ...................................... 634
   Radiology in Obstetrics 634
   Ultrasonics in Obstetrics 635

58. Legal and Ethical Aspects of Midwifery ...................................... 638
   Laws and Ethics 638

   National Family Welfare Program 648
   Reproductive and Child Health Program (RCH) 650
   Janani Suraksha Yojana 653
   Vandemataram Scheme 653
   Safe Abortion Services 653
   National Rural Health Mission (NRHM) 654
   Integrated Child Development Services (ICDS) 655

60. Obstetric and Gynecological Instruments .................................... 657

Section 12: Gynecological Nursing

61. Menstrual Disorders and Abnormal Bleeding ............................... 675
   Amenorrhea 675
   Dysmenorrhea 676
   Mittelschmerz's Syndrome (Ovular Pain) 677
   Dysfunctional Uterine Bleeding (DUB) 677
   Premenstrual Syndrome (PMS) 678
   Menorrhagia 679
   Polymenorrhea (Epimenorrhea) 680
   Metrorrhagia 680
   Oligomenorrhea 680
   Hypomenorrhea 680

62. Displacement of Uterus ............................................................... 681
   Retroversion of Uterus 681
   Uterine Prolapse 682
   Chronic Inversion of Uterus 685

63. Infectious Conditions of Pelvic Organs ................................. 687
   Pelvic Inflammatory Disease (PID) 687
   Endometritis 688
   Cervicitis 690
   Vulval and Vaginal Infections 690
A COMPREHENSIVE TEXTBOOK OF MIDWIFERY AND GYNECOLOGICAL NURSING

64. Benign Pelvic Conditions ........................................................................................................ 692
   Fibroid Tumors 692
   Benign Ovarian Tumors 693
   Polyps 694
   Polycystic Ovary Syndrome (PCOS) 695

65. Gynecological Examinations and Diagnostic Procedures .............................................. 697
   History 697

66. Congenital Malformations of Female Genital Organs .................................................. 702
   Uterine Abnormalities 702
   Vaginal Malformations 704
   Abnormalities of External Genitalia 705
   Anomalies of the Ovary 705

67. Genital Fistulae .................................................................................................................. 707
   Genitourinary Fistula 707
   Urethrovaginal Fistula 710
   Ureterovaginal Fistula 710
   Rectovaginal Fistula (RVF) 711

68. Perioperative Care of Gynecological Patient .................................................................. 712
   Types of Surgery 712
   Management in Preoperative Phase 713
   Intraoperative Phase 714
   Postoperative Phase 715

69. Infertility and its Management ......................................................................................... 716
   Assisted Reproductive Technology (ART) 721

70. Genital Malignancies ......................................................................................................... 725
   Ovarian Cancer 725
   Uterine Cancer 729
   Gestational Trophoblastic Disease (GTD) 731
   Cancer of Cervix 733
   Cancer of the Vulva 736
   Bartholin Gland Cancer 737
   Vaginal Cancer 737
   Cancer of Fallopian Tube 738
   Secondary Fallopian Tube Cancer 739
   Adenomyosis 740

71. Special Gynecological Conditions .................................................................................... 740
   Endometriosis 740
   Dyspareunia 742
   Puberty 743
   Menopause 744

Appendix: Nursing Care Plans for Maternal-Neonatal Clients ........................................... 747
Glossary .................................................................................................................................... 777
Index ......................................................................................................................................... 791