

SCOREBUILDERS

Your Source for Examination Preparation

P T A E X A M

The Complete Study Guide

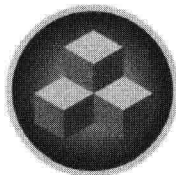
Scott M. Giles



CD-ROM Included

- ▶ 5 full-length exams with explanation of answers and cited resources
- ▶ Comprehensive academic review with 40 clinical templates of commonly encountered medical conditions
- ▶ Proven test taking strategies to maximize exam performance

PTAEXAM: The Complete Study Guide



SCOREBUILDERS

Your Source for Examination Preparation

Scott M. Giles PT, DPT, MBA

President, Scorebuilders
Clinical Associate Professor
Department of Physical Therapy
University of New England

Copyright © 2005
ISBN 1890989-19-3

The enclosed material is the exclusive property of Scorebuilders. No part of this publication may be reproduced or transmitted, in any form, without the express written consent of Scorebuilders.

For additional information on our review texts and software for physical therapists and physical therapist assistants, please contact Scorebuilders.

Scorebuilders
P.O. Box 7242
Scarborough, Maine 04070-7242

Toll Free: (866) PTEXAMS
Phone: (207) 885-0304
Fax: (207) 883-8377
Web site: www.scorebuilders.com

Acknowledgments

Contributors

Therese C. Giles PT, MS
Vice President, Scorebuilders

I would like to thank my wife, Therese, from the bottom of my heart for her many valuable contributions during the entire project. Her substantial contributions to the academic review and clinical application templates sections were a critical component of the project. Thank you for being my teammate and best friend.

Jon Stuart MBA
President, Mindcom

I would like to thank Jon for his technical expertise and willingness to create and adapt the CD-ROM to the many nuances associated with the current National Physical Therapist Assistant Examination.

Special Thanks

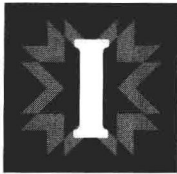
To my children Meghan, Erin, and Alexander. Thanks for your hard work on the project and tolerating the many long nights when Dad had to do “work.” You are all an ongoing source of inspiration for me. Love always.

To Kathy Lavigne for her numerous contributions to the project.

To Michael Anthony for his graphic design expertise and patience.

To Gwenn Hoyt and Kelly Stuart for their creative expertise and guidance.

To the hundreds of students from academic programs throughout the country that served as reviewers throughout the project.



Introduction

PTAEXAM: The Complete Study Guide

Preparing for a comprehensive examination that potentially encompasses all elements of a physical therapist assistant academic program can be an overwhelming task. Students are often exhausted after completing a rigorous academic program and suddenly are faced with the daunting task of taking a comprehensive examination. Anxiety, economics, and a strong desire to practice as a physical therapist assistant only increase a candidate's sense of urgency. Often when faced with such an overwhelming task the reaction is to either procrastinate or to wander aimlessly through study sessions without real direction or focus.

Our text *PTAEXAM: The Complete Study Guide* provides candidates with a number of powerful study tools each designed to prepare candidates for the breadth and depth associated with the current National Physical Therapist Assistant Examination. A brief description of each unit in the study guide is listed below.

Unit One: National Physical Therapist Assistant Examination

The section provides candidates with information on the purpose, development, scoring, and administration of the National Physical Therapist Assistant Examination. Candidates are introduced to a systematic approach to answering multiple-choice questions and are exposed to recent developments in item construction.

Unit Two: Academic Review

The section provides candidates with an efficient method to review didactic information from a physical therapist assistant curriculum. The academic review avoids attempting to cover every aspect of a physical therapist assistant's academic training and instead focuses on the most essential information necessary to maximize examination performance. Since the examination is designed to assess entry-level practice it is likely that candidates will encounter the information presented in the academic review frequently on the actual examination. Mastery of the information presented in the academic review can significantly increase students' scores on the National Physical Therapist Assistant Examination.

Unit Three: Clinical Application Templates

The section includes a description of the physical therapy management of 40 commonly encountered medical diagnoses on the National Physical Therapist Assistant Examination. By utilizing the clinical application templates candidates can expand their applied clinical knowledge while at the same time reinforcing existing knowledge. Since the majority of examination questions are presented in an applied manner it is essential that students possess requisite knowledge related to these medical diagnoses. As candidates become increasingly familiar with the information they will be better able to make informed decisions when answering challenging multiple-choice questions.

Unit Four: Content Outline Examination

The section provides a detailed analysis of each of the content areas of the National Physical Therapist Assistant Examination. By exploring the categories and subcategories of each of the content areas candidates gain a better understanding of the breadth and depth of the current examination. A 150 question sample examination with representative questions from each of the different content outline areas provides students with their first opportunity to answer a full-length examination. An answer key located at the conclusion of the examination includes the correct answer, an explanation supporting the correct answer, and a cited resource with page number.

Unit Five: Paper and Pencil Examinations

The section consists of two, 150 question sample examinations offered in a traditional paper and pencil format. The examinations provide students with the opportunity to refine their test taking skills and to assess their current preparedness for the examination. An answer key located at the conclusion of each of the examinations includes the correct answer, an explanation supporting the correct answer, and a cited resource with page number.

Unit Six: Computer-Based Examinations

The section consists of two, 150 question sample examinations located on a CD-ROM. The examinations were developed based on selected specifications from the current content outline and are designed to expose candidates to the nuances of computer-based testing. Candidates are able to generate a detailed performance analysis summary that identifies current strengths and weaknesses according to selected clinical practice and content outline areas. An answer key located in Unit Six includes the correct answer, an explanation supporting the correct answer, a cited resource with page number, and the clinical practice and content outline area.

*Additional resources to assist candidates with their preparation for the National Physical Therapist Assistant Examination are located at the conclusion of the text.

Author's Note

Congratulations on your decision to purchase *PTAEXAM: The Complete Study Guide*. Leave no stone unturned in your preparation for this important examination and strive to make your examination score reflect your academic knowledge. Candidates that have a firm grasp of didactic information combined with a meaningful study plan emphasizing applied knowledge are often richly rewarded on this challenging examination. We are confident that our text will be a valuable component of your comprehensive study program. Although undoubtedly there will be many magical moments in your life, you will never forget the moment when you become licensed as a physical therapist assistant. Best of luck on the examination and in your future career endeavors!

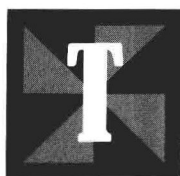


TABLE OF CONTENTS

Unit One: National Physical Therapist Assistant Examination 1

Examination Content Outline.....	2
Examination Scoring.....	3
Applying for the Examination.....	4
Examination Administration.....	5
Test Taking Skills	6
Approach for Answering Multiple-Choice Questions	7
Activity One.....	9
Activity One – Answer Key.....	11
Recent Developments in Item Construction	12
Activity Two.....	12
Activity Two – Answer Key	13
Time Constraints.....	14
Preparing for the Examination	14

Unit Two: Academic Review.....17

Chapter One: Foundational Science..... 19

Anatomy and Physiology	19
Joint Classification.....	19
Specific Joints	19
Joint Receptors.....	20
Muscle Action.....	21
Nerve Root Dermatomes, Myotomes, Reflexes, and Paresthetic Areas	23
Nerves of the Brachial Plexus	25
Lower Extremity Innervation.....	25
Neuroanatomy	26
Cranial Nerves and Methods of Testing.....	26
Kinesiology	27
Planes of the Body	27
Classes of Levers	27
Exercise Physiology.....	27
Energy Systems.....	27
Anaerobic Metabolism.....	27
Aerobic Metabolism.....	28
Muscle Physiology.....	28
Classification of Muscle Fibers.....	28
Functional Characteristics of Muscle Fibers.....	28
Muscle Receptors.....	28
Resistive Training	28
Types of Muscular Contraction.....	28
Open-Chain versus Closed-Chain Activities	29
Resistive and Overload Training.....	29
Exercise Programs	29

Chapter Two: Musculoskeletal 31

Orthopedics	31
Upper Quarter Screening	31
Lower Quarter Screening	31
Scanning Examination to Rule Out Referral of Symptoms from Other Tissues	32
Posture	33
Good and Faulty Posture: Summary Chart	33
Body Composition	34
Densitometry	35
Anthropometry	35
Other Techniques	35
Positioning of a Joint	36
Descriptions of Specific Positions	36
Resting (Loose Packed) Position of Joints	36
Close Packed Position of Joints	36
Common Capsular Patterns of Joints	36
End-Feel	37
Muscle Testing	38
Manual Muscle Testing Grades	38
Positioning for Muscle Testing	38
Gait	39
Standard versus Rancho Los Amigos Terminology	39
Standard Terminology	39
Rancho Los Amigos Terminology	39
Normal Gait	40
Range of Motion Requirements for Normal Gait	40
Peak Muscle Activity during the Gait Cycle	40
Gait Terminology	41
Abnormal Gait Patterns	41
Gait Deviations	42
Range of Motion	42
Average Adult Range of Motion for the Upper and Lower Extremities	42
Process for Conducting Goniometric Measurements	43
Goniometric Technique	43
Muscle Insufficiency	46
Dynamometry	47
Special Tests	47
Special Tests Outline	47
Descriptions of Special Tests	49
Orthotics	56
Types of Orthoses	56
Lower Extremity	56
Spine	57
Functions of Orthotics	57
Orthotic Considerations	57
Orthotic Profile	57
Examination	57
Intervention	58
Goals	58
Mobilization	58
Grades of Movement	58
Mobilization Technique	58
Convex-Concave Rule	58
Orthopedic Profile	58
Examination	58

Intervention.....	59
Goals	59
Orthopedic Surgical Procedures.....	59
Total Hip Replacement	59
Total Knee Replacement.....	59
Continuous Passive Motion Machine.....	60
Orthopedic Pathology	61
Rheumatism	61
Osteoarthritis.....	61
Rheumatoid Arthritis	62
Types of Fractures	62
Orthopedic Terminology.....	62
Pharmacological Intervention for Pain/Orthopedic Management	63
Amputations and Prosthetics	64
Factors that Influence Vascular Disease	64
Risk Factors for Amputation.....	64
Types of Lower Extremity Amputations.....	64
Considerations for Prosthetic Training	64
Potential Complications	65
Types of Post-operative Dressings.....	65
Wrapping Guidelines	65
Components of a Prosthesis	66
Gait Deviations	66
Amputation and Prosthetic Profile.....	67
Examination	67
Preprosthetic Intervention.....	67
Prosthetic Intervention	67
Preprosthetic Goals	67
Prosthetic Goals	68

Chapter Three: Neuromuscular 69

Anatomy.....	69
Central Nervous System	69
Peripheral Nervous System.....	69
Brain (encephalon).....	69
Sensory Testing.....	70
Cranial Nerve Testing.....	70
Deep Tendon Reflexes	71
Peripheral Nerves.....	72
Types of Nerve Injury.....	72
Peripheral Nervous System Pathology.....	72
Upper versus Lower Motor Neuron Disease.....	73
Blood Supply to the Brain.....	73
Cerebral Hemisphere Function	73
Hemisphere Specialization/Dominance	75
Balance.....	75
Balance Reflexes.....	75
Vertigo	76
Nystagmus	76
Vestibular Rehabilitation	76
Pharmacological Intervention for Vestibular Management	76
Vestibuloocular Retraining Therapeutic Guidelines.....	76
Communication Disorders	77
Cerebrovascular Accident.....	78
Risk Factors for Cerebrovascular Accident	78
Types of Cerebrovascular Accidents	78

Expected Impairment Based on Vascular Involvement	79
Characteristics of a Cerebrovascular Accident	79
Synergy Patterns	80
Theories of Neurological Rehabilitation	80
Bobath – Neuromuscular Developmental Treatment	80
Brunnstrom – Movement Therapy in Hemiplegia	81
Kabat, Knott, and Voss – Proprioceptive Neuromuscular Facilitation	81
Motor Control: A Task-Oriented Approach	85
Rood	85
Pharmacological Intervention for CVA Management	86
Neurological Profile	86
Examination	86
Intervention	86
Goals	87
Neurological Terminology	87
Spinal Cord Injury	88
Types of Spinal Cord Injury	88
Specific Incomplete Lesions	88
Potential Complications of Spinal Cord Injury	88
Functional Outcomes for Complete Lesions	90
Pharmacological Intervention for SCI Management	93
Spinal Cord Injury Profile	93
Examination	93
Intervention	93
Goals	93
Spinal Cord Injury Terminology	94
Traumatic Brain Injury	94
Types of Injury	94
Acute Diagnostic Management	95
Glasgow Coma Scale	95
Rancho Los Amigos Levels of Cognitive Functioning	95
Levels of Consciousness	96
Memory Impairments	96
Treatment Guidelines for Brain Injury	96
Pharmacological Intervention for TBI Management	96
Traumatic Brain Injury Profile	97
Examination	97
Intervention	97
Goals	97
Chapter Four: Cardiopulmonary	99
Cardiac	99
Anatomy of the Heart	99
Coronary Arteries	99
Cardiac Conduction System	100
Cardiac Reflexes	100
Heart Sounds	100
Cardiac Facts	100
Common Circulatory Pulse Locations	101
Diagnostic Tests for Cardiac Dysfunction	101
Electrocardiogram	102
Pathological Changes in an ECG	102
Comparisons of Right and Left-Sided Heart Failure	103
Vital Signs	103
Blood Pressure	103
Heart Rate/Pulse	104

Respiratory Rate	105
Borg's Rate of Perceived Exertion Scale	105
Metabolic Equivalents	105
Cardiac Pathology	106
Methods to Determine Exercise Intensity	106
Cardiac Rehabilitation	106
Indications for Cardiac Rehabilitation	106
Relative Contraindications to Stop Exercising during Cardiac Rehabilitation	107
Contraindications for Cardiac Rehabilitation	107
Absolute Contraindications for Treatment of an Unstable Cardiac Patient	107
Absolute Contraindications to Exercise Testing	107
Benefits of Routine Exercise	107
Description of a Cardiac Rehabilitation Program	107
Therapist Role during Inpatient Cardiac Rehabilitation	108
Therapist Role during Outpatient Cardiac Rehabilitation	108
Cardiopulmonary Resuscitation Standards	108
Cardiac Profile	109
Examination	109
Intervention	109
Inpatient Goals	109
Outpatient Goals	109
Cardiac Pathology	109
Pharmacological Intervention for Cardiac Management	111
Pulmonary	112
Breath Sounds	112
Voice Sounds	112
Pulmonary Function Testing	113
Gas Pressure	113
Pulmonary Function Reference Values	113
Determining Lung Capacities	113
Typical Lung Volumes and Capacities	113
Forced Expiratory Volumes	113
Physical Signs Observed in Various Disorders	114
Interpretation of Abnormal Acid-Base Balance	115
Arterial Blood Gases	115
Indications for Chest Physical Therapy	115
Contraindications for Postural Drainage	115
Contraindications for Percussion	116
Guidelines for Chest Physical Therapy	116
Goals for Chest Physical Therapy	116
Bronchial Drainage	116
Breathing Exercises	117
Pulmonary Profile	118
Examination	118
Intervention	118
Goals	118
Pulmonary Pathology	118
Pharmacological Intervention for Pulmonary Management	119

Chapter Five: Integumentary **121**

Integumentary System	121
Key Functions of the Integumentary System	121
Ulcers	121
Types of Ulcers	121
Characteristics of Arterial and Venous Insufficiency Ulcers	121
Intervention and Treatment Recommendations	122

Types of Dressings.....	122
Occlusion and Moisture	123
Red-Yellow-Black System.....	124
Selective Debridement.....	124
Non-selective Debridement.....	124
Wound Terminology.....	125
Factors Influencing Wound Healing	125
Scar management.....	125
Exudate Classification	125
Pressure Ulcer Staging.....	126
The Wagner Ulcer Grade Classification Scale.....	126
Bony Prominences Associated with Pressure Injuries	126
Burns.....	127
Types of Burns.....	127
Burn Classification.....	127
Zone of Injury	127
Rule of Nines	127
Positioning and Splinting.....	127
Anticipated Deformities Based on Burn Location	128
Skin Graft Procedures.....	128
Burn Profile.....	128
Examination	128
Intervention.....	128
Goals.....	129
Burn Terminology.....	129

Chapter Six: Patient Care Skills 131

Patient Management.....	131
Patient Communication.....	131
Ergonomic Guidelines	131
Body Mechanics	131
Lifting Guidelines	131
Mobility.....	132
Preparation for Treatment.....	132
Bed Mobility Guidelines.....	132
Transfers	133
Types of Transfers	133
Wheelchairs	134
Wheelchair Facts.....	134
Standard Wheelchair Measurements for Proper Fit.....	135
Components of a Wheelchair.....	135
Ambulation	136
Assistive Devices.....	136
Assistive Device Selection.....	136
Levels of Weight Bearing	137
Guidelines for Guarding during Ambulation	137
Gait Patterns.....	137
Guidelines for Guarding during Stair and Curb Training	137
Infection Control.....	138
Infection Control Terminology	138
Infectious Disease	138
Chain of Transmission for Infection	138
Precautions.....	138
Universal Precautions	138
Standard Precautions.....	139
Transmission-based Precautions	139

Nosocomial Infections	140
Application of Sterile Protective Garments	140
Sterile Field Guidelines.....	140
Accessibility	141
Americans with Disabilities Act	141
Accessibility Requirements	141
Laboratory/Diagnostic Testing	142
Laboratory Testing.....	142
Reference Values for Clinical Chemistry (Blood, Serum, Plasma)	143
Reference Values in Hematology	143
Diagnostic Tests.....	144
Medical Equipment.....	145
Tubes, Lines, and Equipment.....	145
Chapter Seven: Physical Agents.....	147
Therapeutic Modalities.....	147
Indications for Therapeutic Modalities	147
Phases of Tissue Healing	147
Principles of Heat Transfer	147
Types of Pain	147
Cryotherapy	148
Stages of Perceived Sensations during Cryotherapy	148
Ice Massage.....	148
Cold Pack.....	148
Cold Bath	148
Vapocoolant Spray.....	149
Superficial Heating Agents.....	149
Fluidotherapy	149
Hot Pack.....	149
Infrared Lamp	149
Paraffin	150
Deep Heating Agents.....	150
Diathermy	150
Ultrasound.....	151
Hydrotherapy.....	152
Properties of Water	152
Types of Hydrotherapy	153
Contrast Bath	154
Mechanical Agents	154
Traction.....	154
Compression	155
Additional Physical Agents	155
Ultraviolet.....	155
Massage	156
Electrotherapy.....	157
Electrode Configuration.....	157
Electrode Size	157
Treatment Parameters	157
Common Methods of Delivery	158
Russian Current.....	158
Neuromuscular Electrical Stimulation	158
Transcutaneous Electrical Nerve Stimulation	159
Iontophoresis.....	159
High-Voltage Pulsed Current.....	160
Electromyography.....	160
Biofeedback	161

Electrical Equipment Care and Maintenance.....	162
Electrotherapy Terminology	162

Chapter Eight: Education 165

Psychology	165
Maslow's Hierarchy of Needs.....	165
Classical Conditioning.....	165
Operant Conditioning.....	165
Social Learning Theory.....	165
Patient Education.....	166
Adult Learning	166
Teaching Methods.....	166
Guidelines for Effective Patient Education	166
Principles of Motivation	167
Cultural Influences.....	167
Designing Effective Patient Education Materials	167
Teaching Guidelines for Specific Patient Categories.....	167
Stages of Dying.....	168
Education Concepts	169
Practice	169
Feedback	169
Team Models	169

Chapter Nine: Administration 171

Documentation	171
Purpose of Documentation.....	171
Types of Documentation.....	171
Guidelines for Physical Therapy Documentation	172
Military Time.....	177
Symbols Commonly Used in Clinical Practice	177
Measurement.....	178
Metric versus United States Units of Measure.....	178
Ethics.....	178
Ethical Principles	178
Management.....	179
Quality Management Process.....	179
Quality Assurance.....	179
Legal.....	179
Elements of a Risk Management Program.....	179
Recommendations to Avoid Litigation	179
Legal Terminology.....	179
Delegation and Supervision.....	180
American Physical Therapy Association Direction, Delegation, and Supervision in Physical Therapy Services	180
Support Personnel Supervised by Physical Therapists.....	180
Health Care Professions	181
Physical Therapy Practice.....	183
The Elements of Patient/Client Management Leading to Optimal Outcomes	183
Standards of Practice for Physical Therapy and the Criteria.....	183
Standards of Ethical Conduct for the Physical Therapist Assistant	188
Guide for Conduct of the Physical Therapist Assistant	188
Health Insurance.....	191
Private Health Insurance Companies	191
Independent Health Plans	191
Fee for Service versus Managed Care.....	191
Government Health Insurance	192

Reimbursement Coding	192
----------------------------	-----

Chapter Ten: Special Topics 195

Oncology	195
Oncology Terminology	195
Tissue and Tumor Classification Chart.....	195
General Signs and Symptoms of Cancer.....	195
Staging	196
Leading Causes of Cancer Deaths	196
Cancer Prevention.....	196
Types of Cancer	196
Oncology Treatment Options.....	199
Oncology Profile.....	199
Examination.....	199
Intervention.....	200
Goals	200
Modality Contraindications in the Treatment of Cancer.....	200
Treatment Guidelines.....	200
Obstetrics.....	201
Exercise and Pregnancy	201
American College of Obstetricians and Gynecologists Recommendations for Exercise in Pregnancy and Postpartum.....	201
Physiological Changes during Pregnancy.....	201
Pediatrics	202
Developmental Gross and Fine Motor Skills	202
Concepts of Development.....	204
Pediatric Therapeutic Positioning	205
Ideal Positioning	205
Infant Reflexes and Possible Effects if Reflex Persists Abnormally	206
Pediatric Profile	207
Examination.....	207
Intervention.....	207
Goals	207
Pediatric Pathology	208
Cardiopulmonary	208
Musculoskeletal	209
Neurological.....	210
Oncology.....	212
Rheumatory.....	213
Models of Disability	213
The Nagi Model	213
The International Classification of Impairment, Disabilities, and Handicaps Model	214
Disablement Model.....	214
Outcome Measurement Tools	215
Balance	215
Cognitive Assessment.....	215
Coordination and Manual Dexterity.....	215
Endurance	216
Motor Recovery	216
Pain	216
Self-Care and ADL	217
Research Basics	217
Ethical Considerations	217
Reliability	218
Validity	218

Measures of Central Tendency	218
------------------------------------	-----

Unit Three: Clinical Application Templates..... 219

Template 1: Achilles Tendon Rupture	223
Template 2: Adhesive Capsulitis	225
Template 3: Amyotrophic Lateral Sclerosis.....	227
Template 4: Ankylosing Spondylitis.....	229
Template 5: Anterior Cruciate Ligament Sprain – Grade III	231
Template 6: Carpal Tunnel Syndrome	233
Template 7: Cerebral Palsy	235
Template 8: Cerebrovascular Accident.....	237
Template 9: Cystic Fibrosis	239
Template 10: Degenerative Spondylolisthesis	241
Template 11: Down Syndrome	243
Template 12: Duchenne Muscular Dystrophy	245
Template 13: Emphysema.....	247
Template 14: Fibromyalgia.....	249
Template 15: Full-Thickness Burn	251
Template 16: Guillain-Barre Syndrome.....	253
Template 17: Huntington’s Disease	255
Template 18: Juvenile Rheumatoid Arthritis	257
Template 19: Lateral Epicondylitis.....	259
Template 20: Medial Collateral Ligament Sprain – Grade II.....	261
Template 21: Multiple Sclerosis	263
Template 22: Osteoporosis.....	265
Template 23: Parkinson’s Disease	267
Template 24: Patellofemoral Syndrome.....	269
Template 25: Plantar Fasciitis.....	271
Template 26: Restrictive Lung Disease	273
Template 27: Rheumatoid Arthritis	275
Template 28: Rotator Cuff Tendonitis	277
Template 29: Sciatica Secondary to a Herniated Disk.....	279
Template 30: Scoliosis.....	281
Template 31: Spina Bifida - Myelomeningocele	283
Template 32: Spinal Cord Injury – C7 Tetraplegia.....	285
Template 33: Systemic Lupus Erythematosus	287
Template 34: Thoracic Outlet Syndrome	289
Template 35: Temporomandibular Joint Dysfunction	291
Template 36: Total Hip Arthroplasty	293
Template 37: Total Knee Arthroplasty	295
Template 38: Transfemoral Amputation due to Osteosarcoma.....	297
Template 39: Transtibial Amputation due to Arteriosclerosis Obliterans.....	299
Template 40: Traumatic Brain Injury	301

Unit Four: Content Outline 303

Physical Therapist Assistant Examination Content Outline.....	303
System Specific Specifications	305
Sample Two-Month Long Range Schedule	306
Exam: Content Outline	307
Tests and Measures (Data Collection)	308
Intervention.....	318
Standards of Care.....	337
Exam: Content Outline Answer Key.....	341

Unit Five: Paper and Pencil Examinations 353

EXAM One: Paper and Pencil	355
EXAM One: Paper and Pencil Answer Key	379

EXAM Two: Paper and Pencil.....	391
EXAM Two: Paper and Pencil Answer Key.....	413

Unit Six: Computer-Based Examinations..... 425

EXAM One: Computer-Based Answer Key	427
EXAM Two: Computer-Based Answer Key	461

Appendix 497

Sample Examination Scoring Summary	497
Resource List	499
Physical Therapy State Licensing Agencies	501
Prometric Testing Centers.....	507

Bibliography

Product Information.....

PTAEXAM: Online Advantage	
PTAEXAM: The Complete Study Guide	