



Certified Phlebotomy Technician (CPT) – Comprehensive Test Plan

Introduction

The eLightenment Solutions Certified Phlebotomy Technician (CPT) Test Plan provides a structured overview of the examination used to assess competency in phlebotomy practice. The plan ensures that all test items align with current standards of safety, patient care, compliance, and specimen handling.

The test plan reflects modern best practices and incorporates randomized item generation from a validated question bank. This ensures that each candidate is tested fairly across all domains, while maintaining proportional coverage of essential skills and knowledge.

Examination Overview

- Total Scored Items: 110
- Exam Time: 1.5 hours
- Format: Multiple-choice, assessing recall, application, and critical thinking
- Delivery: Computer-based testing with randomized item selection
- Purpose: To confirm that candidates demonstrate the core competencies required to practice as a Certified Phlebotomy Technician

Examination Domains & Weighting

Domain	Approximate Weighting	Question Selection
Professionalism, Ethics, and Basics	~10%	Randomized from Professionalism, Ethics, and Basics item bank
Infection Control and Safety	~13%	Randomized from Infection Control and Safety item bank
Anatomy, Physiology, and Site Selection	~17%	Randomized from Anatomy, Physiology, and Site Selection item bank
Equipment, Order of Draw, and Specimen Collection	~33%	Randomized from Equipment, Order of Draw, and Specimen Collection item bank
Special Procedures, Complications, and Specimen Processing	~27%	Randomized from Special Procedures, Complications, and Specimen Processing item bank
Total	100%	100 randomized questions

Domain 1: Professionalism, Ethics, and Basics (~10%)

- Patient rights, confidentiality (HIPAA), and professionalism
- Scope of practice for phlebotomy technicians
- Informed consent and refusal of care
- Communication skills and patient interaction
- Legal and ethical responsibilities
- Workplace conduct and prioritization of orders

Domain 2: Infection Control and Safety (~13%)

- Standard and transmission-based precautions
- Hand hygiene and use of PPE
- Bloodborne pathogens and exposure prevention
- Sharps safety and needlestick prevention
- Isolation precautions
- Incident reporting and exposure control plans
- Proper disposal of biohazardous materials

Domain 3: Anatomy, Physiology, and Site Selection (~17%)

- Basic anatomy and physiology related to phlebotomy
- Structure and function of blood components
- Vein anatomy and selection
- Capillary vs. venous collection sites
- Special population considerations (infants, mastectomy patients, IVs)
- Recognition of abnormal veins and contraindicated sites

Domain 4: Equipment, Order of Draw, and Specimen Collection (~33%)

- Phlebotomy equipment and supplies
- Needle types, gauges, and collection systems
- Venipuncture and capillary collection techniques
- Order of draw (venous and capillary)
- Tube additives and test associations
- Specimen labeling and patient identification
- Prevention and management of complications
- Patient preparation and special handling requirements

Domain 5: Processing (~15%)

- Timed tests (GTT, peak/trough drug levels)
- Blood cultures and chain-of-custody collections
- Specimen handling, transport, and processing
- Pre-analytical, analytical, and post-analytical errors
- Specimen rejection criteria

- Recognition of hemolyzed, lipemic, or compromised specimens
- Quality control and quality assurance principles

Core Knowledge (Applied Across All Domains)

- Proper patient identification using two unique identifiers
- Effective and respectful communication with patients and healthcare staff
- Professionalism, ethical conduct, and protection of patient confidentiality
- Application of standard precautions and infection control practices
- Maintenance of specimen integrity through correct collection and labeling
- Appropriate selection and safe use of phlebotomy equipment
- Ensuring patient safety, comfort, and post-collection care
- Recognition and prevention of pre-analytical errors
- Awareness of regulatory requirements and facility policies
- Use of critical thinking and problem-solving in non-routine situations

Professional Notes

Examinations are computer-based and randomized, ensuring no two exams are identical. The randomization process maintains domain coverage balance

Candidates are encouraged to prepare across all content domains, as each exam version provides a comprehensive assessment of phlebotomy practice.

Alignment with eLightenment Solutions' Mission

This CPT Test Plan supports the organization's broader mission:

“Empowering Communities Through Education, Training, and Support.”

By aligning examination content with nationally recognized standards, eLightenment Solutions ensures that certified professionals are prepared to provide safe, effective, and ethical patient care.