CERTIFIED PARAOPHTOMETRIC TECHNICIAN WRITTEN EXAMINATION – CPOT WRITTEN

Outline
This outline will provide you with information on the content of the Certified Paraoptometric Technician (CPOT) written examination. The following outline includes a brief explanation of the expanded areas to be tested, in addition to areas inclusive of the CPO and CPOA outlines. You should be familiar with all the terms, meanings and uses, and with the instrumentation needed for data gathering or testing procedures. All 225 questions (as well as additional pre-test questions) on the examination are of the objective, multiple choice types. Passing score is determined by the CPC.

I. Pre-Testing Procedures (20%)
   A. Case History
      1. Components
         a. Chief complaint
         b. Medical and ocular history
            (1) patient
            (2) family
         c. Occupation and avocation
   B. Visual Acuity
      1. Types and Charts
      2. Procedures
      3. Conversion
   C. Vision Screening and Preliminary Testing Techniques
      1. Visual Skills
      2. PD – Interpupillary Distance
      3. Muscle Balance
         a. Cover test
         b. Hirschberg test
         c. Maddox rod
         d. Other
      4. Near Point of Convergence
      5. Pursuits, Rotations, Saccades
      6. Eye Dominance
      7. Fusion
      8. Pupillary Responses
   D. Color Vision
      1. Types of Tests
         a. Pseudoisochromatic plates
         b. Hue discrimination
         c. Anomaloscope
         d. Other
      2. Procedures
      3. Significance of Testing
         a. Incidence
         b. Causes
      4. Classification of Disorders
   E. Stereo Acuity
      1. Types of Tests
      2. Procedures
      3. Significance of Testing

II. Clinical Procedures (28%)
   A. Corneal Topography/Automated Keratometry
1. Procedure
2. Interpretation

B. Tonometry
1. Instrumentation
   a. Applanation
   b. Indentation (impression)
   c. Noncontact
2. Procedures

C. Visual Fields
1. Instrumentation
   a. Confrontation
   b. Flat central field screening
   c. Flat central field testing
   d. Perimetry
2. Procedures
3. Classification of Defects
4. Purpose
5. Terminology

D. Sphygmomanometry

E. Contact Lenses
1. Types
   a. Parameters
   b. Materials
2. Pre-Fitting Evaluation
3. Ordering Procedures
4. Verification
5. Care and Handling Techniques
   a. Patient
      (1) application and removal
      (2) solutions
      (3) adaptation
   b. Office
6. Fitting Theories
7. Special Lens Designs
8. Progress Evaluation
9. Modification
10. Related Ocular Problems
   a. Giant papillary conjunctivitis
   b. Keratitis
   c. Abrasion
   d. Pseudomonas
   e. Acanthamoeba
   f. Other

F. Vision Therapy
1. Anomalies and Associated Procedures
2. Equipment and Techniques

G. Triage/First Aid
1. Non-Ocular Involvement
2. Ocular Involvement

H. Vision Rehabilitation
1. Classification
2. Aids
3. Patient Instruction

I. Special Ocular Procedures
1. Ocular Photography
2. Ophthalmic Ultrasound
3. Potential Acuity Measurement
4. Contrast Sensitivity
5. Biomicroscopy
6. Surgery
7. Other

III. Ophthalmic Optics and Dispensing (18%)

A. Optical Principles of Light
   1. Lenses
   2. Mirrors
   3. Refraction
   4. Reflection
   5. Focal Length Calculations

B. Prescriptions
   1. Components
      a. Lens power
      b. Major reference point
      c. Prism
      d. Other
   2. Ordering
   3. Optical Crosses
   4. Transposition
   5. Decentration
   6. Verification and Neutralization
   7. Equivalent Power
   8. Refractive vs. Effective Power
   9. Vertex Distance

C. Lenses
   1. Materials
      a. Characteristics
      b. Thickness and weight
      c. Impact resistance
   2. Forms
      a. Convex and concave
      b. Sphere, cylinder, spherocylinder
      c. Base curves
   3. Types
      a. Single vision
      b. Multifocals
         (1) characteristics
         (2) add, intermediate powers
         (3) segment design
      c. Special prescription considerations
         (1) Aphakic
         (2) high minus
         (3) industrial/occupational
         (4) other
   4. Blank Size
   5. Tints and Coatings
      a. Colors
      b. Photochromic
      c. Polarized
      d. Ultraviolet
e. Anti-reflection  
f. Scratch coat  
g. Other  
6. Index of Refraction  
7. Prisms  
a. Purpose, use, function  
b. Optics of prism  
c. Prentice’s rule  

D. Frame Selection  
1. Materials  
2. Styling  
3. Sizing and Measurement  
a. Frame fit  
b. Segment placement  
c. Major reference point  
4. Frame Repair  

E. Adjustment  
1. Frame Alignment  
2. Adjustment Procedures  
a. Frame materials  
b. Tools  
c. Techniques  
3. Patient Instruction  
4. Frame Repair  

IV. Refractive Status of the Eye and Binocularity (12%)  
A. Refractive Errors  
1. Types  
a. Myopia  
b. Hyperopia  
c. Astigmatism  
2. Causes  
3. Corrective Lenses  
B. Refractive Conditions  
1. Types  
a. Aphakia  
b. Anisometropia  
c. Aniseikonia  
d. Amblyopia  
2. Causes  
3. Corrective Lenses  
C. Eye Movements  
1. Versions  
2. Vergence  
D. Binocular Vision  
1. Fusion  
2. Disorders  
a. Phoria  
b. Tropia  
c. Other  
3. Accommodative Mechanism  
4. AC/A Ratio  

V. Anatomy and Physiology (15%)  
A. General Anatomy and Physiology
1. **Major Systems**
2. Functions of Major Systems
3. Extra-Ocular Muscles

**B. Eye**
1. Structure
2. Function
3. Pathology
   a. Glaucoma
   b. Cataracts
   c. Corneal problems
   d. Retinal problems
   e. Conjunctiva
   f. Iris
   g. Ocular adnexa
   h. Visual pathway
   i. Dry eye
4. Pharmacology
   a. Diagnostic agents
   b. Therapeutic agents
   c. Techniques

**VI. Practice Management (7%)**
A. **Office Management**
B. **Professional Issues**
   1. Professional and Paraprofessional Functions
   2. **Liability and Malpractice**
   3. Conduct, Confidentiality, and Ethics
   4. **Hygiene and Infection Control**
C. **Government Rules and Regulations**
D. **Health Information Technology**

**Recommended Reference Material**

Listed below are general references that may be useful in preparing for the CPOT written examination. The listing of these resources does not constitute a CPC endorsement of these resources and does not imply a guarantee that candidates will be successful in passing the CPOT written examination. Please see the CPOT written examination Study Map for additional sources.

- Brooks, Clifford W. and Irving M. Borish
  *System for Ophthalmic Dispensing, 3rd ed.*
  Butterworth-Heinemann, 2006

- Kanski, Jack J.
  Butterworth-Heinemann, 2008

- Mannis, Mark J. et. al.
  *Contact Lenses in Ophthalmic Practice*
  Springer-Verlag, Inc., 2004

- Stein, Harold A. et. al.
  *Ophthalmic Assistant: A Text for Allied and Associated Ophthalmic Personnel, 9th ed.*
  Mosby, 2013