

## Appendix A

**COA, COT, and COMT Content Area Percentages**

| <b>CONTENT AREA</b>                          | <b>COA %</b> | <b>COT %</b> | <b>COMT %</b> |
|----------------------------------------------|--------------|--------------|---------------|
| History Taking                               | 8            | 6            | 3             |
| Pupillary Assessment                         | 3            | 5            | 4             |
| Contact Lenses                               | 2            | 3            | 0             |
| Equipment Maintenance and Repair             | 4            | 4            | 3             |
| Lensometry                                   | 3            | 5            | 6             |
| Keratometry                                  | 3            | 5            | 3             |
| Medical Ethics, Legal, and Regulatory Issues | 5            | 3            | 5             |
| Microbiology                                 | 2            | 3            | 5             |
| Pharmacology                                 | 8            | 5            | 8             |
| Ocular Motility                              | 3            | 5            | 11            |
| Assisting in Surgical Procedures             | 7            | 6            | 3             |
| Ophthalmic Patient Services and Education    | 16           | 7            | 10            |
| Ophthalmic Imaging                           | 3            | 7            | 6             |
| Refractometry                                | 6            | 7            | 6             |
| Spectacle Skills                             | 3            | 3            | 0             |
| Supplemental Skills                          | 8            | 9            | 10            |
| Tonometry                                    | 4            | 5            | 5             |
| Visual Assessment                            | 8            | 6            | 6             |
| Visual Fields                                | 4            | 6            | 6             |

### **Skill Areas for the COT Skill Evaluation (Also required for COMT level if not previously COT certified)**

Candidates will be asked to demonstrate their skill in each of the following seven areas:

- **Lensometry:** Demonstrate the ability to perform non-automated lensometry to determine the strength of the distance correction and the bifocal or trifocal add.
- **Visual Fields:** Demonstrate the ability to perform an automated visual field on a specified automated visual field test as determined by JCAHPO.
- **Ocular Motility:** Demonstrate the ability to detect a phoria or tropia, and identify the direction of the deviation using appropriate cover tests.
- **Keratometry:** Demonstrate the ability to perform keratometry.
- **Retinoscopy:** Demonstrate the ability to perform retinoscopy.
- **Refinement:** Demonstrate the ability to perform refinement.
- **Tonometry:** Demonstrate the ability to perform applanation tonometry.

### **Skill Areas for the COMT Performance Test**

Candidates will be asked to demonstrate their skill in each of the following five areas:

- Measure patient's ocular motility using prism and cover tests at a distance.
- Perform manual lensometry: Identify and measure prism.
- Perform fundus photography and identify fluorescein angiography phases.
- Measure, compare, and evaluate pupil function at a distance.
- Evaluate versions and ductions, identifying any abnormalities.

## Appendix A

### COA, COT, and COMT Sub-Content Areas

Higher level examinations may contain areas also found in lower level examinations.

| CONTENT AREAS                                       | COA (Basic)                                                                                                                                                                                               | COT (Intermediate)                                                                                                                                                                                                                                                                                                                                                                                  | COMT (Advanced)                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HISTORY TAKING</b>                               | Ocular<br>Medical<br>Medication<br>Social<br>Family                                                                                                                                                       | Ocular<br>Medical<br>Medication<br>Social<br>Family                                                                                                                                                                                                                                                                                                                                                 | Ocular<br>Medical<br>Medication<br>Social<br>Family                                                                                                                                                                                                                                                                                                       |
| <b>PUPILLARY ASSESSMENT</b>                         | Measure<br>Compare<br>Evaluate                                                                                                                                                                            | Measure<br>Compare<br>Evaluate<br>RAPD                                                                                                                                                                                                                                                                                                                                                              | Measure<br>Compare<br>Evaluate<br>RAPD                                                                                                                                                                                                                                                                                                                    |
| <b>CONTACT LENSES</b>                               | Measure<br>Patient Instruction<br>Patient Counsel<br>Fitting                                                                                                                                              | Measure<br>Patient Instruction<br>Patient Counsel<br>Fitting                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                           |
| <b>EQUIPMENT MAINTENANCE AND REPAIR</b>             | Ophthalmic Lenses, Instruments, and Equipment                                                                                                                                                             | Ophthalmic Lenses, Instruments, and Equipment                                                                                                                                                                                                                                                                                                                                                       | Ophthalmic Lenses, Instruments, and Equipment                                                                                                                                                                                                                                                                                                             |
| <b>LENSOMETRY</b>                                   | Neutralize Spectacles <ul style="list-style-type: none"> <li>Automated</li> <li>Manual</li> </ul>                                                                                                         | Neutralize Spectacles <ul style="list-style-type: none"> <li>Automated</li> <li>Manual</li> </ul> Fresnel<br>Ground-in prism<br>Slab-off                                                                                                                                                                                                                                                            | Neutralize Spectacles <ul style="list-style-type: none"> <li>Automated</li> <li>Manual</li> </ul> Fresnel<br>Ground-in prism<br>Slab-off                                                                                                                                                                                                                  |
| <b>KERATOMETRY</b>                                  | Corneal Curvature                                                                                                                                                                                         | Corneal Curvature<br>Keratometer                                                                                                                                                                                                                                                                                                                                                                    | Corneal Curvature<br>Keratometer                                                                                                                                                                                                                                                                                                                          |
| <b>MEDICAL ETHICS, LEGAL, AND REGULATORY ISSUES</b> | Coding<br>Government/institutional rules and regulations<br>Quality assurance<br>Ethical & legal standards<br>Scribing<br>Confidentiality<br>Informed consent                                             | Coding<br>Government/institutional rules and regulations<br>Quality assurance<br>Ethical & legal standards<br>Scribing<br>Confidentiality<br>Informed consent                                                                                                                                                                                                                                       | Coding<br>Government/institutional rules and regulations<br>Quality assurance<br>Ethical & legal standards<br>Scribing<br>Confidentiality<br>Informed consent                                                                                                                                                                                             |
| <b>MICROBIOLOGY</b>                                 | Office antisepsis<br>Universal precautions                                                                                                                                                                | Office antisepsis<br>Universal precautions<br>Specimens and biopsies<br>Cultures                                                                                                                                                                                                                                                                                                                    | Office antisepsis<br>Universal precautions<br>Specimens and biopsies<br>Cultures                                                                                                                                                                                                                                                                          |
| <b>PHARMACOLOGY</b>                                 | Ocular medications (instilling and identifying)<br>Educate patients on medications<br>Drug reactions                                                                                                      | Ocular medications (instilling and identifying)<br>Educate patients on medications<br>Drug reactions                                                                                                                                                                                                                                                                                                | Ocular medications (instilling and identifying)<br>Educate patients on medications<br>Drug reactions                                                                                                                                                                                                                                                      |
| <b>OCULAR MOTILITY</b>                              | Version and Ductions <ul style="list-style-type: none"> <li>Functions</li> <li>Anomalies</li> </ul> Cover Tests<br>Stereoaucity<br>Nystagmus                                                              | Version and Ductions <ul style="list-style-type: none"> <li>Functions</li> <li>Anomalies</li> </ul> Near point convergence<br>Near point accommodation<br>Fusional convergence amplitudes<br>Cover Tests<br>Strabismus with prisms<br>Worth 4-Dot test<br>Maddox rod<br>Krimsky<br>Stereoaucity<br>Nystagmus<br>Amblyopia therapy<br>Convergence training                                           | Version and Ductions <ul style="list-style-type: none"> <li>Functions</li> <li>Anomalies</li> </ul> Near point convergence<br>Near point accommodation<br>Fusional convergence amplitudes<br>Cover Tests<br>Strabismus with prisms<br>Worth 4-Dot test<br>Maddox rod<br>Krimsky<br>Stereoaucity<br>Nystagmus<br>Amblyopia therapy<br>Convergence training |
| <b>ASSISTING IN SURGICAL PROCEDURES</b>             | Instrument preparation<br>Refractive surgery<br>Aseptic technique<br>Non-refractive laser therapy<br>Intraocular injections<br>Yag laser<br>Sterilization<br>Surgical site identification<br>Laser safety | Instrument preparation<br>Refractive surgery<br>Aseptic technique<br>Non-refractive laser therapy<br>Intraocular injections<br>Yag laser<br>Sterilization<br>Surgical site identification<br>Scrub technician duties<br>Surgical ophthalmic equipment <ul style="list-style-type: none"> <li>Phacoemulsifier</li> <li>Vitrectomy units</li> <li>Laser automated keratometer</li> </ul> Laser safety | Instrument preparation<br>Refractive surgery<br>Aseptic technique<br>Non-refractive laser therapy<br>Intraocular injections                                                                                                                                                                                                                               |

## Appendix A

### COA, COT, and COMT Sub-Content Areas

Higher level examinations may contain areas also found in lower level examinations.

| CONTENT AREAS                                      | COA (Basic)                                                                                                                                                                                                                                                                                                                                                                                                                                   | COT (Intermediate)                                                                                                                                                                                                                                                                                                                                                                                                                                            | COMT (Advanced)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OPHTHALMIC PATIENT SERVICES &amp; EDUCATION</b> | Patient Education <ul style="list-style-type: none"> <li>• Surgery</li> <li>• Systemic &amp; ocular diseases</li> <li>• Anatomy &amp; physiology (general &amp; ocular)</li> <li>• Safety glasses</li> </ul> Patient Instruction <ul style="list-style-type: none"> <li>• Medication</li> <li>• Tests</li> <li>• Procedures</li> <li>• Treatments</li> </ul> Eye Dressings<br>Patient flow<br>Triage<br>Forms & Manuals<br>Vital signs<br>CPR | Patient Education <ul style="list-style-type: none"> <li>• Surgery</li> <li>• Systemic &amp; ocular diseases</li> <li>• Anatomy &amp; physiology (general &amp; ocular)</li> <li>• Safety glasses</li> </ul> Patient Instruction <ul style="list-style-type: none"> <li>• Medication</li> <li>• Tests</li> <li>• Procedures</li> <li>• Treatments</li> </ul> Eye Dressings<br>Patient flow<br>Triage<br>Forms & Manuals<br>Vital signs<br>CPR                 | Patient Education <ul style="list-style-type: none"> <li>• Surgery</li> <li>• Systemic &amp; ocular diseases</li> <li>• Anatomy &amp; physiology (general &amp; ocular)</li> <li>• Safety glasses</li> </ul> Patient Instruction <ul style="list-style-type: none"> <li>• Medication</li> <li>• Tests</li> <li>• Procedures</li> <li>• Treatments</li> </ul> Eye Dressings<br>Patient flow<br>Triage<br>Forms & Manuals<br>Vital signs<br>CPR                                                                    |
| <b>OPHTHALMIC IMAGING</b>                          | Slit lamp/anterior segment photography<br>Fundus photography<br>External photography<br>Diagnostic/standardized A-Scan<br>Corneal topography<br>Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>• HRT</li> <li>• GDx</li> <li>• OCT</li> </ul>                                                                                                                                                                | Slit lamp/anterior segment photography<br>Fundus photography<br>Fluorescein angiography<br>External photography<br>Imaging artifacts<br>Diagnostic/standardized A-Scan<br>B-Scan<br>Corneal topography<br>Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>• HRT</li> <li>• GDx</li> <li>• OCT</li> </ul>                                                                                                                      | Slit lamp/anterior segment photography<br>Fundus photography<br>Fluorescein angiography<br>External photography<br>Imaging artifacts<br>Diagnostic/standardized A-Scan<br>B-Scan<br>Corneal topography<br>Scanning laser tests for glaucoma/retina <ul style="list-style-type: none"> <li>• HRT</li> <li>• GDx</li> <li>• OCT</li> </ul>                                                                                                                                                                         |
| <b>REFRACTOMETRY</b>                               | Refractive error (automated)<br>Manifest refractometry                                                                                                                                                                                                                                                                                                                                                                                        | Refractive error (automated)<br>Manifest refractometry<br>Retinoscopy                                                                                                                                                                                                                                                                                                                                                                                         | Refractive error (automated)<br>Manifest refractometry<br>Retinoscopy                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>SPECTACLE SKILLS</b>                            | Transpose cylinder readings                                                                                                                                                                                                                                                                                                                                                                                                                   | Transpose cylinder readings<br>Prescriptions<br>Vertex distance <ul style="list-style-type: none"> <li>• Measure</li> <li>• Conversion</li> </ul>                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>SUPPLEMENTAL SKILLS</b>                         | IOL power calculation<br>A/C depth<br>Pachymetry<br>Calibrate biometry instruments<br>Tear Tests <ul style="list-style-type: none"> <li>• Schirmer</li> <li>• BUT</li> <li>• Rose Bengal</li> </ul> Glare testing<br>Color vision testing<br>Contact A-Scan<br>Laser interferometry (IOL Master)                                                                                                                                              | IOL power calculation<br>Low vision<br>A/C depth<br>Pachymetry<br>Tear Tests <ul style="list-style-type: none"> <li>• Schirmer</li> <li>• BUT</li> <li>• Rose Bengal</li> </ul> Calibration <ul style="list-style-type: none"> <li>• Biometry instruments</li> <li>• Topography unit</li> </ul> Anterior chamber depth<br>Exophthalmometry<br>Glare testing<br>Color vision testing<br>Contact A-Scan<br>Wavefront diagnostics<br>Corneal sensitivity testing | IOL power calculation<br>Low vision<br>A/C depth<br>Pachymetry<br>Tear Tests <ul style="list-style-type: none"> <li>• Schirmer</li> <li>• BUT</li> <li>• Rose Bengal</li> </ul> Calibration <ul style="list-style-type: none"> <li>• Biometry instruments</li> <li>• Topography unit</li> </ul> Anterior chamber depth<br>Exophthalmometry<br>Glare testing<br>Color vision testing<br>Contact and Immersion A-Scan<br>Laser interferometry (IOL Master)<br>Wavefront diagnostics<br>Corneal sensitivity testing |
| <b>TONOMETRY</b>                                   | Goldmann applanation tonometer <ul style="list-style-type: none"> <li>• Clean, Disinfect, Calibrate</li> </ul>                                                                                                                                                                                                                                                                                                                                | Goldmann applanation tonometer <ul style="list-style-type: none"> <li>• Clean, Disinfect, Calibrate</li> </ul> Intraocular pressure                                                                                                                                                                                                                                                                                                                           | Goldmann applanation tonometer <ul style="list-style-type: none"> <li>• Clean, Disinfect, Calibrate</li> </ul> Intraocular pressure                                                                                                                                                                                                                                                                                                                                                                              |
| <b>VISUAL ASSESSMENT</b>                           | Visual acuity<br>Potential acuity meter measurement<br>Pinhole acuity                                                                                                                                                                                                                                                                                                                                                                         | Visual acuity <ul style="list-style-type: none"> <li>• Optotype</li> <li>• ETDRS</li> <li>• EVA</li> </ul> Projection chart<br>Contrast sensitivity testing<br>Potential acuity meter measurement<br>Laser interferometry (IOL Master)<br>Pinhole acuity                                                                                                                                                                                                      | Visual acuity <ul style="list-style-type: none"> <li>• Optotype</li> <li>• ETDRS</li> <li>• EVA</li> </ul> Projection chart<br>Contrast sensitivity testing<br>Potential acuity meter measurement<br>Laser interferometry (IOL Master)<br>Pinhole acuity                                                                                                                                                                                                                                                         |
| <b>VISUAL FIELDS</b>                               | Amsler Grid<br>Confrontation fields<br>Automated perimetry                                                                                                                                                                                                                                                                                                                                                                                    | Amsler Grid<br>Goldmann perimetry<br>Confrontation fields<br>Automated perimetry                                                                                                                                                                                                                                                                                                                                                                              | Amsler Grid<br>Goldmann perimetry<br>Confrontation fields<br>Automated perimetry                                                                                                                                                                                                                                                                                                                                                                                                                                 |