APPENDIX A

COT Exam Content Areas Effective Mid 2012

COA, COT and COMT CONTENT AREA PERCENTAGES

CONTENT AREA	COA %	COT %	COMT %
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

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	COT	COMT
HISTORY TAKING	**Ocular** **Medical** **Medication** **Social** **Family**	**Ocular** **Medical** **Medication** **Social** **Family**	**Ocular** **Medical** **Medication** **Social** **Family**
PUPILLARY ASSESSMENT	**Measure** **Compare** **Evaluate** **RAPD**	**Measure** **Compare** **Evaluate** **RAPD**	**Measure** **Compare** **Evaluate** **RAPD**
CONTACT LENSES	**Measure** **Patient Instruction** **Patient Counsel** **Fitting**	**Measure** **Patient Instruction** **Patient Counsel** **Fitting**	
EQUIPMENT MAINTENANCE & REPAIR	**Ophthalmic Lenses, Instruments and equipment** **i.** Clean and lubricate **ii.** Tighten screws **iii.** Replace parts	**Ophthalmic Lenses, Instruments and equipment** **i.** Clean and lubricate **ii.** Tighten screws **iii.** Replace parts **iv.** Maintenance	**Ophthalmic Lenses, Instruments and equipment** **i.** Clean and lubricate **ii.** Tighten screws **iii.** Replace parts **iv.** Maintenance
LENSOMETRY	**Neutralize Spectacles** **i. Automated** **ii. Manual**	**Neutralize Spectacles** **i. Automated** **ii. Manual** **Fresnel** **Ground-in prism** **Slab-off**	**Neutralize Spectacles** **i. Automated** **ii. Manual** **Fresnel** **Ground-in prism** **Slab-off**
KERATOMETRY	**Corneal Curvature**	**Corneal Curvature** **Keratometer**	**Corneal Curvature** **Keratometer**
MEDICAL ETHICS, LEGAL AND REGULATORY ISSUES	**Third party coding** **Government and institutional rules and regulations** **Quality assurance** **Ethical & legal standards** **Scribing** **Confidentiality** **Informed consent**	**Third party coding** **Government and institutional rules and regulations** **Quality assurance** **Ethical & legal standards** **Scribing** **Confidentiality** **Informed consent**	**Third party coding** **Government and institutional rules and regulations** **Quality assurance** **Ethical & legal standards** **Scribing** **Confidentiality** **Informed consent**
MICROBIOLOGY	**Office antisepsis** **Universal precautions**	**Office antisepsis** **Universal precautions** **Specimens and biopsies** **Cultures**	**Office antisepsis** **Universal precautions** **Specimens and biopsies** **Cultures**
PHARMACOLOGY	**Ocular medications (instilling and identifying)** **Educate patients on medications** **Drug reactions**	**Ocular medications (instilling and identifying)** **Educate patients on medications** **Drug reactions**	**Ocular medications (instilling and identifying)** **Educate patients on medications** **Drug reactions**
OCULAR MOTILITY	**Version and Ductions** **i.** Functions **i.** Anomalies **Cover Tests** **Stereoacuity** **Nystagmus**	**Version and Ductions** **i.** Functions **i.** Anomalies **Near point convergence** **Near point accommodation** **Fusional convergence amplitudes** **Cover Tests** **Strabismus with prisms** **Worth 4-Dot test** **Maddox Red** **Krimsky** **Stereoacuity** **Nystagmus** **Amblyopia therapy** **Convergence training**	**Version and Ductions** **i.** Functions **i.** Anomalies **Near point convergence** **Near point accommodation** **Fusional convergence amplitudes** **Cover Tests** **Strabismus with prisms** **Worth 4-Dot test** **Maddox Red** **Krimsky** **Stereoacuity** **Nystagmus** **Amblyopia therapy** **Convergence training**

APPENDIX A (Continued)

COA, COT and COMT SUB-CONTENT AREAS

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

CONTENT AREAS	COA	COT	COMT
ASSISTING IN SURGICAL PROCEDURES	**Instrument preparation** **Refractive surgery** **Sterile fields** **Aseptic technique** **Non-refractive laser therapy** **Intraocular injections** **Yag laser** **Sterilization** **Surgical site identification** **Laser safety** **Assist with surgical procedures**	**Instrument preparation** **Refractive surgery** **Sterile fields** **Aseptic technique** **Non-refractive laser therapy** **Intraocular injections** **PDT procedures** **Yag laser** **Sterilization** **Surgical site identification** **Scrub technician duties** **Surgical ophthalmic equipment** i. Phacoemulsifier ii. Vitrectomy units iii. Laser automated keratometer **Laser safety** **Assist with surgical procedures** **Refractive surgical procedures**	**Instrument preparation** **Refractive surgery** **Sterile fields** **Aseptic technique** **Non-refractive laser therapy** **Intraocular injections** **PDT procedures**
OPHTHALMIC PATIENT SERVICES & EDUCATION	**Patient Education** i. Surgery ii. Systemic & ocular diseases iii. Anatomy & physiology (general) iv. Anatomy & physiology (ocular) v. Safety glasses **Patient Instruction** i. Medication ii. Tests iii. Procedures iv. Treatments **Eye Dressings** **Patient flow** **Triage CPR** **Forms & Manuals** **Legal forms for government services** **Vital signs** **CPR**	**Patient Education** i. Surgery ii. Systemic & ocular diseases iii. Anatomy & physiology (general) iv. Anatomy & physiology (ocular) v. Safety glasses **Patient Instruction** i. Medication ii. Tests iii. Procedures iv. Treatments **Eye Dressings** **Patient flow** **Triage CPR** **Forms & Manuals** **Legal forms for government services** **Vital signs** **CPR**	**Patient Education** i. Surgery ii. Systemic & ocular diseases iii. Anatomy & physiology (general) iv. Anatomy & physiology (ocular) v. Safety glasses **Patient Instruction** i. Medication ii. Tests iii. Procedures iv. Treatments **Eye Dressings** **Patient flow** **Triage CPR** **Forms & Manuals** **Legal forms for government services** **Vital signs** **CPR**
OPHTHALMIC IMAGING	**Slit lamp/anterior segment photography** **Fundus photography** **External photography** **Diagnostic/standardized A-scan** **Corneal topography** **Scanning laser tests for glaucoma/retina** i. HRT ii. GDX iii. OCT	**Slit lamp/anterior segment photography** **Fundus photography** **Fluorescein angiography** **External photography** **Imaging artifacts** **Diagnostic/standardized A-scan** **B-Scan** **Corneal topography** **Scanning laser tests for glaucoma/retina** i. HRT ii. GDX iii. OCT **Endothelial cell count**	**Slit lamp/anterior segment photography** **Fundus photography** **Fluorescein angiography** **External photography** **Imaging artifacts** **Diagnostic/standardized A-scan** **B-Scan** **Corneal topography** **Scanning laser tests for glaucoma/retina** i. HRT ii. GDX iii. OCT **Endothelial cell count**
REFRACTOMETRY	**Refractive error (automated)** **Manifest refractometry**	**Refractive error (automated)** **Manifest refractometry** **Retinoscopy**	**Refractive error (automated)** **Manifest refractometry** **Retinoscopy**
SPECTACLE SKILLS	**Transpose cylinder readings**	**Transpose cylinder readings** **Prescriptions** **Vertex distance** i. Measure ii. Conversion	

APPENDIX A (Continued)

COA, COT and COMT SUB-CONTENT AREAS

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

CONTENT AREAS	COA	COT	COMT
SUPPLEMENTAL SKILLS	**IOL power calculation** **A/C depth** **Pachymetry** **Calibrate biometry instruments** **Tear Tests** i. Schirmer ii. BUT iii. Rose Bengal **Glare testing** **Color vision testing** **Contact A-scan** **Laser interferometry (IOL Master)**	**IOL power calculation** **Low vision** **A/C depth** **Pachymetry** **Calibrate biometry instruments** **Tear Tests** i. Schirmer ii. BUT iii. Rose Bengal **Calibration** **Topography unit calibration** **Anterior chamber depth** **Exophthalmometry** **Glare testing** **Color vision testing** **Contact A-scan** **Laser interferometry (IOL Master)** **Wavefront diagnostics** **Corneal sensitivity testing**	**IOL power calculation** **Low vision** **A/C depth** **Pachymetry** **Calibrate biometry instruments** **Tear Tests** i. Schirmer ii. BUT iii. Rose Bengal **Calibration** **Topography unit calibration** **Anterior chamber depth** **Exophthalmometry** **Glare testing** **Color vision testing** **Contact A-scan** **Immersion A-scan** **Laser interferometry (IOL Master)** **Wavefront diagnostics** **Corneal sensitivity testing**
TONOMETRY	**Goldmann applanation tonometer** i. Clean ii. Disinfect iii. Calibrate	**Goldmann applanation tonometer** i. Clean ii. Disinfect iii. Calibrate **Intraocular pressure**	**Goldmann applanation tonometer** i. Clean ii. Disinfect iii. Calibrate **Intraocular pressure**
VISUAL ASSESSMENT	**Visual acuity** **Potential acuity meter measurement** **Pinhole acuity**	**Visual acuity** i. Optotype ii. Special situations iii. ETDRS iv. EVA **Projection chart** **Contrast sensitivity testing** **Potential acuity meter measurement** **Laser interferometer test** **Pinhole acuity**	**Visual acuity** i. Optotype ii. Special situations iii. ETDRS iv. EVA **Projection chart** **Contrast sensitivity testing** **Potential acuity meter measurement** **Laser interferometer test** **Pinhole acuity**
VISUAL FIELDS	**Amsler Grid** **Confrontation fields** **Automated perimetry**	**Amsler Grid** **Goldmann perimetry** **Confrontation fields** **Automated perimetry**	**Amsler Grid** **Goldmann perimetry** **Confrontation fields** **Automated perimetry**

- Graduated from high school or the equivalent.
- Successfully completed an approved independent study course (e.g., JCAHPO Independent Study Course (JCAT) or the American Academy of Ophthalmology Independent Study Course) within 36 months (three-years) prior to submitting your examination application.
- Completed 12 JCAHPO Group A continuing education credits within 12 months (one-year) prior to submitting your application.
- Employed by a company supplier of ophthalmology products and/or services.

Content Outline for the CCOA Examination

	CONTENT AREAS	**% of Exam**
1	History Taking	20
2	Basic Skills & Lensometry	17
3	Patient Services	16
4	Basic Tonometry	15
5	Instrument Maintenance	11
6	General Medical Knowledge	21

Please refer to Appendix B for the CCOA sub-content areas.