

(Effective before mid-to-late 2009)

1. HISTORY TAKING**A. Presenting Complaint/****History of Presenting Illness**

- Signs and symptoms
- Triage
- Refractive status
- Injury
- Contact lenses
- Confidentiality

B. Past Ocular History

- Refractive status problems
- Injury
- Diseases and prescriptions
- Surgery and laser
- Contact lenses

C. Family History

- Diabetes
- Glaucoma
- Hypertension
- Ocular diseases and dystrophies
- Strabismus
- Other

D. Systemic Illness, Past and Present

- Hypertension
- Diabetes
- Cardiac problems
- Pulmonary problems
- Arthritis
- Sickle Cell disease
- Surgical procedures
- Major infections
- Other

E. Medications

- Aspirin-containing medications
- Diuretics
- Blood pressure medications
- Birth control pills
- Steroids
- Other

F. Allergies and Drug Reactions

- Penicillin
- Sulfa
- Local anesthesia
- Fluorescein
- Other

G. Partially Sighted Patient

- Onset of visual loss
- Use of low vision aids
- Problems/goals
- Home/family/community support

2. BASIC SKILLS AND LENSOMETRY**A. Method of Measuring/****Recording Acuity**

- Distance acuity
- Near acuity
- Children
- Low vision
- Illumination of target and background
- Pinhole
- Artifacts
- Recording

B. Color Vision Testing

- Color plates
- D-15
- Farnsworth-Munsell
- Physiology
- Children

C. Lensometry

- Sphere
- Cylinder power/axis
- Prism
- Multifocal power
- Multifocal induced prism
- Base curve
- Lensometer
- Lens "clock"
- Estimation with loose lenses
- Aphakic lenses
- Recording prescription
- Transposition

D. A-scan Biometry**E. Schirmer Tests****F. Exophthalmometry****G. Evaluation of Pupils****H. Amsler Grid****I. Estimation of Anterior Chamber Depth****3. PATIENT SERVICES****A. Ocular Dressings and Shields**

- Indications
- Proper use

B. Drug Delivery**(Advantages/Disadvantages)**

- Drops
- Ointments
- Sustained release
- Injections
- Systemic
- Complications

C. Spectacle Principles

- Interpupillary distance
- Frames
- Multifocals
- "Safety" lenses and frames
- Adjustments and repair
- Care of spectacles
- Lens materials

D. Assisting Patient

- Physically disabled
- Visually disabled
- Pediatric/children

E. Minor Surgery

- Assisting surgeon
- Instructing patient

4. BASIC TONOMETRY**A. Applanation**

- Principles
- Errors
- Cleaning and sterilizing
- Advantages/disadvantages
- Technique

B. Non-Contact**C. Complications/Contraindications****D. Scleral Rigidity**

- General concepts
- Methods of assessing scleral rigidity

E. Factors Altering Intraocular Pressure

- Squeezing eyelids
- Heartbeat
- Breath holding
- Tight collar
- Body position
- Other

5. INSTRUMENT MAINTENANCE**A. Acuity Projectors****B. Tangent Screen****C. Lenses****D. Ophthalmoscopes****E. Phoropters****F. Tonometers**

- Direct
- Indirect

G. Retinoscopes**H. Slit Lamps****I. Muscle Light****J. Lensometers****K. Ultrasound****L. Special Instruments (Equipment)****M. Perimeters****N. Keratometers****O. Surgical Instruments****6. GENERAL MEDICAL KNOWLEDGE****A. Cardiopulmonary Resuscitation**

- Fainting
- Cardiac arrest
- Acute drug reaction

B. Anatomy

- Cardiovascular
- Respiratory
- Endocrine
- Nervous
- Ocular

C. Physiology

- Cardiovascular
- Respiratory
- Endocrine
- Nervous
- Ocular

D. Systemic Diseases

- Diabetes
- Hypertension
- Cancer
- Atherosclerosis
- Blood
- Infections
- Blood dyscrasia
- Infectious disease

E. Ocular Diseases

- Refractive errors
- Infection
- Injury
- Red eye
- Presbyopia
- Other common disorders

F. Ocular Emergencies

- First aid
- Management in the absence of the physician

G. Metric Conversions**H. Fundamentals of Microbial Control**

- Sanitation
- Disinfection
- Sterilization
- Contamination

COA/CCOA Content Outlines - Multiple-Choice Examinations

*(Effective mid-to-late 2009) *Please check JCAHPO's Web site for updates.*

CONTENT AREA		% of exam
1	History Taking	3
2	Pupillary Assessment	3
3	Equipment Maintenance and Repair	4
4	Lensometry	3
5	Keratometry	3
6	Medical Ethics, Legal and Regulatory Issues	5
7	Microbiology	2
8	Pharmacology	8
9	Ocular Motility	5
10	In-office Minor Surgical Procedures	5
11	Ophthalmic Patient Services and Education	13
12	Ophthalmic Imaging	7
13	Refractometry	6
14	Spectacle Skills	3
15	Supplemental Skills	10
16	Tonometry	5
17	Visual Assessment	6
18	Visual Fields	6
19	Surgical Assisting in ASC or Hospital-Based OR	3

The COA/CCOA examination will include questions in each content area. Possible question topics are listed below, under each content area.

1. HISTORY TAKING

- Ocular
- Medical
- Medication
- Social
- Family

2. PUPILLARY ASSESSMENT

- Measure
- Compare
- Evaluate
- RAPD

3. EQUIPMENT MAINTENANCE AND REPAIR

- Ophthalmic lenses, instruments, and equipment
 - i. Clean & lubricate
 - ii. Tighten screws
 - iii. Replace parts

4. LENSOOMETRY

- Neutralize spectacles
 - i. Automated
 - ii. Manual

5. KERATOMETRY

- Corneal curvature

6. MEDICAL ETHICS, LEGAL AND REGULATORY

- Third party coding
- Government and institutional rules and regulations
- Quality assurance
- Ethical & legal standards
- Scribing
- Charting
- Confidentiality
- Informed consent

7. MICROBIOLOGY

- Office antisepsis
- Universal precautions

8. PHARMACOLOGY

- Ocular medications (instilling and identifying)
- Educate patients on medications
- Drug reactions

9. OCULAR MOTILITY

- Version and duction
 - i. Function
 - ii. Anomalies
- Cover tests
- Stereoacuity
- Nystagmus

10. IN-OFFICE MINOR SURGICAL PROCEDURES (ASSIST)

- Instrument preparation
- Refractive
- Sterile fields
- Aseptic technique
- Non-refractive laser therapy
- Intraocular injections

Continued

11. 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
- Forms & Manuals
- Legal forms for government services
- Vital signs
- CPR

12. 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

13. REFRACTOMETRY

- Refractive error (automated)
- Manifest refractometry

14. SPECTACLE SKILLS

- Transpose cylinder readings

15. 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

16. TONOMETRY

- Goldmann applanation tonometer
 - i. Clean
 - ii. Disinfect
 - iii. Calibrate
- Intraocular pressure

17. VISUAL ASSESSMENT

- Visual acuity
- PAM
- Pinhole acuity

18. VISUAL FIELDS

- Amsler Grid
- Confrontation Fields
- Automated perimetry

19. SURGICAL ASSISTING

- Yag Laser
- Sterilization
- Site identification
- Laser safety
- Assist with procedures

Recertification Credits

Number of Credits Required per each 36-month Cycle:			
Credential	Total Number of Credits Required	Minimum Number of Group A Credits Required	Maximum Number of Group B Credits Permitted
COA/CCOA	18	12	6