THE OPTOMETRY COUNCIL OF AUSTRALIA AND NEW ZEALAND

Examination for Optometrists with Overseas Qualifications

FIRST PAPER

November 2004

Perusal time: 10 minutes

Time allowed: THREE Hours

Candidates should answer ALL questions. All questions are of equal value

1. List and briefly discuss the major causes of visual impairment in Australia. List and briefly discuss the major causes of visual impairment in developing countries.

2. A teenage male attends your practice because he knows he is colour defective and he has been told that there are some professions where restrictions are placed on those with a colour vision problem. What advice would you give this patient?

3. Indicate the review cycle you would recommend for the following patients including your rationale behind the review cycle suggested-

   a) a patient with mild background retinopathy

   b) a patient with a branch retinal vein occlusion

   c) a patient from whom you have just removed a superficial corneal foreign body

   d) a 6 year old child with hypermetropia and an alternating esotropia

   e) a patient with optic nerve head drusen

4. Discuss the indications for gonioscopic assessment of a patients' anterior chamber angle. Describe the structures you will see if the angle is open.

5. Central visual field testing has an important role in the diagnosis of glaucoma. What type of central field test would you use for a patient who was a glaucoma suspect? How would you determine whether the test was reliable? What information would you concentrate on in the printout to help decide as to whether the patient had glaucoma?

6. Discuss the ophthalmic drugs most commonly used for dilation. Include in your answer their mode of action, duration and side effects. What patients should not be dilated?

7. (a) Define stereopsis. How would you measure stereopsis? What are normal values?

   (b) Describe how you would assess whether a patient was suppressing an eye.

8. Dry eye is a common disorder of the tear film caused by tear deficiency or excessive tear evaporation. What are the major causes of dry eye and how should dry eye be assessed?

9. Discuss the course of the optic nerve. What type of visual deficit would you expect to see in the case of:

   a) An occipital lobe lesion

   b) A pituitary tumour

   c) A temporal lobe tumour

   d) Retinoblastoma

10. Describe the afferent pupil pathway. What conditions cause an afferent pupil defect and how do we test for an afferent pupil defect clinically.

11. A child presents with a history of reading difficulties. Ocular examination reveals no significant prescription and normal accommodative vergence function. There is no ocular pathology. How would you examine this child's visual processing capacity?

12. Due to severe allergic symptoms a contact lens patient who has been very happy with their acuity (wearing –5.00DS soft contact lenses for both R&L eyes) has to give up contact lens wear. The patient has a pd of 62/59 and has chosen a frame that puts spectacles at 13 mm vertex distance. Assuming no change in refractive error:

    a) What power spectacle lenses do you calculate will be required? (3 marks)

    b) What would be the change in accommodation and convergence demands (compared to wearing contact lenses) when reading 50 cm from the spectacle plane? (7 marks)

13. What visual problems might be experienced by younger presbyopic patients when using a computer screen within an office environment? What lens designs can be used to creatively overcome these difficulties? Does this depend on the patient distance prescription? In your answer outline briefly the advice you would give to patients about the advantages and disadvantages of each prescribing option.

14. a) Describe how an anti-reflection coating reduces reflections and when you would recommend an anti-reflection coating to a patient. (5 marks)

    b) A patient who works in a chemistry department at a university and is a current spectacle wearer comes to you for advice about safety glasses to use in the laboratory. What advice would you give? (5 marks)

15. A presbyopic patient presents to you wanting to know the advantages and disadvantages of bifocals compared to progressive lenses. They also understand there are different types of progressive lenses available. Detail how would you discuss this issue with your patient.

16. A patient is to be fitted with an RGP lens in one eye.

Preliminary findings are:

Ks	40.86 (8.26) @ 145
	43.61 (7.74) @ 55
oc rx	+0.25/-1.25x45

a) Based on these findings determine the amount and axis of the residual cylinder (3 marks)

b) A spherical trial lens with BOZR of 8.05 mm and BVP of +1.00 is placed on the eye.

(i) Calculate the resultant tear lens power when this spherical trial lens power is placed on the eye (3 marks)

(ii) What is the expected sphero-cylinder over refraction when this spherical lens is worn (4 marks)

16. Contact lenses may affect the anterior eye by causing

(i) hypoxia

(ii) infection

(iii) allergic or toxic reactions

(iv) mechanical effects

(v) drying

Briefly discuss the signs, symptoms, and most likely cause of each of these contact lens related problems.

18. a) What is a bandage contact lens? When might use of a bandage contact lens be indicated? (5 marks)

b) Briefly discuss the contact lens options available for a presbyopic contact lens wearer. (5 marks)