Sample Test Items
Part II (Clinical Science)

1. When you ask a patient to shrug his shoulders, which cranial nerve are you evaluating?
   a. Vagus
   b. Glossopharyngeal
   *c. Spinal accessory
   d. Hypoglossal
   e. Trigeminal

   Section: A   Primary Subcontent Area: 2   Skill: 2

2. Ankylosing spondylitis INITIALLY leads to inflammation and functional change within which skeletal region?
   a. Cervical
   b. Thoracic
   *c. Sacroiliac
   d. Coccyx

   Section: A   Primary Subcontent Area: 3   Skill: 1

3. A 59-year-old male complains of headache and blurred vision. He is found to have a markedly elevated red blood cell count, normal arterial oxygen saturation, and mildly elevated white blood cell and platelet counts. The patient also has splenomegaly.

   The MOST likely diagnosis is:
   a. chronic myeloid leukemia
   b. myelofibrosis
   c. essential thrombocytosis
   *d. polycythemia vera

   Section: A   Primary Subcontent Area: 6   Skill: 3

4. Hematuria is MOST likely the result of which of the following conditions?
   *a. Cystitis
   b. Hepatitis
   c. Pancreatitis
   d. Hemosiderosis

   Section: A   Primary Subcontent Area: 9   Skill: 1

5. All of the following are extraintestinal manifestations of idiopathic inflammatory bowel disease EXCEPT:
   a. arthritis
   b. hepatic disease
   c. ocular inflammation
   *d. pulmonary infections

   Section: A   Primary Subcontent Area: 10   Skill: 2
6. Which of the following laboratory tests will yield abnormal results in a patient who has liver damage?

   a. Creatine phosphokinase
   b. Blood urea nitrogen
   c. Uric acid
   *d. Bilirubin

Section: A Primary Subcontent Area: 11 Skill: 2

7. A child with mental retardation, single palmar creases, low set ears, prominent epicanthal folds, and short stature MOST likely has:

   a. osteogenesis imperfecta
   b. fetal alcohol syndrome
   *c. trisomy 21
   d. cretinism

Section: A Primary Subcontent Area: 18 Skill: 3

8. The MOST frequent etiology of a unilateral or bilateral proptosis in an adult is:

   a. orbital pseudotumor
   b. cavernous hemangioma
   c. painful ophthalmoplegia
   *d. Graves' disease

Section: B Primary Subcontent Area: 1 Skill: 1

9. A 25-year-old male had a racquetball injury 5 days ago and was subsequently hospitalized because of a hyphema in his right eye. You examine the patient and find intraocular pressures of 45 mmHg OD and 15 mmHg OS. This patient's unilateral glaucoma is MOST likely:

   *a. hemorrhagic
   b. ghost cell
   c. pigmentary
   d. pupillary-block

Section: B Primary Subcontent Area: 3 Skill: 3

10. A 33-year-old female has iridocyclitis. Slit lamp examination findings include large, mutton-fat, keratic precipitates. The Clinical procedure MOST likely to confirm your diagnosis is:

   *a. a chest x-ray
   b. an upper GI series
   c. an antinuclear antibody test
   d. urinalysis

Section: B Primary Subcontent Area: 5 Skill: 2
11. A 72-year-old female manifests lenticular changes and an increase in myopia. Which of the following types of cataracts is MOST likely responsible for these clinical signs?

- a. Anterior cortical
- b. Nuclear  
- c. Cerulean
- d. Posterior polar

Section: B  Primary Subcontent Area: 4  Skill: 2

12. Binocular indirect ophthalmoscopy reveals an oval area of well-circumscribed retinal pigment hyperplasia with an arborizing network of fine white lines on the surface of the pigment. The small island of pigment is located anterior to the equator in the superior temporal quadrant. What is the MOST likely diagnosis?

- a. Pavingstone degeneration
- b. Reticular pigmentary degeneration
- c. Cystoid degeneration
- d. Lattice degeneration
- e. Retinoschisis

Section: B  Primary Subcontent Area: 6  Skill: 3

13. An incongruous homonymous hemianopsia that is MOST dense superiorly is usually indicative of a lesion in which cerebral lobe?

- a. Frontal
- b. Temporal  
- c. Parietal
- d. Occipital

Section: B  Primary Subcontent Area: 7  Skill: 2

14. A 25-year old patient complains of sudden vision loss in the left eye, with no other symptoms. Visual field examination reveals a central scotoma for the left eye. Ophthalmoscopy reveals an elevated optic nerve head for the left eye, with no other abnormalities. The MOST likely diagnosis is:

- a. papillitis
- b. papilledema
- c. melanocytoma
- d. central retinal artery occlusion of the left eye

Section: B  Primary Subcontent Area: 7  Skill: 3

15. The Jackson crossed cylinder subjective test is begun with a -1.00 DS -1.75 DC x 090 lens in front of a patient's eye. If the correcting cylinder power is changed to -0.75 DC x 090, then the spherical power should now be:

- a. -2.00 DS
- b. -1.50 DS
- c. -1.00 DS
- d. -0.50 DS
- e. +0.50 DS

Section: C  Primary Subcontent Area: 1  Skill: 2
16. A 53-year-old male complains of occasional blur at distance and near. His visual acuities are 20/30 in each eye at distance and near with his present lens correction of OU +1.00 DS, Add +1.75 D. Your distance refraction for 20/20+ acuity is OU +1.50 DS. The **BEST** tentative Add for the new prescription will have a power of:

a. +1.25 D  
b. +1.75 D  
c. +2.25 D  
d. +2.50 D

Section: C Primary Subcontent Area: 2 Skill: 3

17. Examination of a 15-year-old patient reveals the following:

**Prescription:**
- OD -2.50 DS -0.75 DC x 090
- OS +3.25 DS -0.50 DC x 180

**Keratometry:**
- OD 43.50 D @ 180, 43.00 D @ 090
- OS 39.00 D

Which of the following spectacle lens designs should be the **MOST** effective in reducing aniseikonia for this patient?

<table>
<thead>
<tr>
<th>Base Curve OD</th>
<th>Center Thickness OD</th>
<th>Base Curve OS</th>
<th>Center Thickness OS</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. +3.75 D</td>
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<td>+7.50 D</td>
<td>3.6 mm</td>
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<tr>
<td>c. +5.25 D</td>
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<td>+7.50 D</td>
<td>3.5 mm</td>
</tr>
<tr>
<td>*d. +6.25 D</td>
<td>3.4 mm</td>
<td>+6.25 D</td>
<td>3.4 mm</td>
</tr>
</tbody>
</table>

Section: C Primary Subcontent Area: 3 Skill: 3

18. How much more relative distance magnification is calculated by utilizing a 40-cm reference distance rather than a 25-cm reference distance?

*a. 1.6X  
b. 2.0X  
c. 2.5X  
d. 4.0X

Section: C Primary Subcontent Area: 4 Skill: 2

19. A 71-year-old monocular low vision patient has a distance correction of +3.00 DS. Through a single +5.50 DS lens in the trial frame, he can barely read 2M print at 40 cm. What is the **SMALLEST** print you should expect him to barely read at a distance of 20 cm, through a total lens power of +8.00 DS in the trial frame?

a. 0.6M  
b. 0.8M  
c. 1.0M  
d. 2.0M  
e. 4.0M

Section: C Primary Subcontent Area: 4 Skill: 2
20. A 21-year-old patient has a history of previously uncorrected simple hyperopic astigmatism of 3.00 D in each eye. Which of the following is MOST likely to be associated with the patient's refractive error?

a. Eccentric fixation in one or both eyes
*b. Meridional amblyopia in both eyes
 c. Monocular central suppression
d. Anomalous retinal correspondence
e. Strabismus secondary to the uncorrected refractive error

Section: C Primary Subcontent Area: 5 Skill: 3

21. In performing the alternating cover test, a patient with normal correspondence reports that the target moves to the right and down as the right eye is uncovered and the left covered. Which of the following deviations is MOST likely present?

a. Double hyper
*b. Eso, right hyper
c. Eso, right hypo
d. Exo, right hyper
e. Exo, right hypo

Section: C Primary Subcontent Area: 6 Skill: 2

22. The near point of accommodation (NPA) of a patient wearing a +1.25 D Add over his BEST distance correction is 19 cm. If the Add is removed, the NPA would then be at approximately:

a. 15 cm
b. 20 cm
*c. 25 cm
d. 30 cm

Section: C Primary Subcontent Area: 7 Skill: 2

23. Consider a patient with the following clinical data:

Spectacle prescription at the corneal plane: +7.00 DS -3.50 DC x 180
Keratometry findings: 41.50 D @ 180, 44.00 D @ 090

A diagnostic rigid contact lens for the patient has the following characteristics:
Power: +2.00 DS
Base curve: 42.00 D (8.04 mm)

The expected over-refraction is:

*a. +4.50 DS -1.00 DC x 180
b. +4.50 DS -3.00 DC x 180
c. +5.00 DS -1.50 DC x 180
d. +5.50 DS -1.87 DC x 180

Section: C Primary Subcontent Area: 8 Skill: 2
24. Which of the following tests would be LEAST appropriate for assessing visual information processing skills?
   a. Gardner Reversal Frequency Test
   b. Visual Motor Integration Test
   c. Test of Visual Perceptual Skills
   *d. The Grooved Pegboard Test

   Section: D     Primary Subcontent Area: 1    Skill: 2

25. When an elderly person is driving toward a sunset, his vision is disturbed MOST by the normal aging changes in:
   a. tear film
   b. pupil size
   c. dark adaptation
   *d. the crystalline lens

   Section: D     Primary Subcontent Area: 2    Skill: 1

26. A 65-year-old patient had a cerebrovascular accident and now manifests strabismus. In testing this patient for correspondence, the MOST likely result would be:
   a. unharmonious anomalous correspondence
   b. harmonious anomalous correspondence
   *c. normal correspondence

   Section: D     Primary Subcontent Area: 3    Skill: 3

27. Both a husband and wife pass standard color vision tests. If the wife's father has an inherited red-green color defect, what is the probability that the couple's daughter will be color defective?
   *a. 0.00
   b. 0.25
   c. 0.50
   d. 1.00

   Section: D     Primary Subcontent Area: 4    Skill: 3

28. A new screening test for glaucoma is being evaluated. The test was administered to 480 persons, 60 of whom were known to have glaucoma. This new test was found to be positive in 50 of the 60 people with glaucoma as well as in 15 people who did not have glaucoma. What is the specificity of this screening test?
   a. 84.4%
   b. 87.5%
   *c. 96.4%
   d. 98.8%
   e. 103.7%

   Section: E     Primary Subcontent Area: 1    Skill: 2
29. Which of the following provides the GREATEST amount of protection to a worker's eyes during a chemical splash accident?

   a. Large diameter soft contact lenses
   b. Rigid gas permeable contact lenses
   c. Safety frames with side shields attached to the temples
   *d. Safety goggles with indirect venting under a face shield

   Section: E     Primary Subcontent Area: 3     Skill: 3

30. The Federal Trade Commission's (FTC's) "Eyeglasses" rule requires:

   a. the release of contact lens prescriptions
   b. a specified minimum of elements for spectacle prescriptions
   c. that the words "OK for contact lenses" be written on spectacle prescriptions
   *d. that spectacle prescriptions be provided to patients at the conclusion of the examination

   Section: F     Primary Subcontent Area: 3     Skill: 3

31. A patient with which of the following conditions would be considered legally blind by MOST state statutes?

<table>
<thead>
<tr>
<th>Uncorrected Acuity</th>
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<th>Visual Field</th>
<th>Diagnosis</th>
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<td>OS</td>
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<td>OS</td>
</tr>
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<td>d. 20/400</td>
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</tr>
<tr>
<td>e. 20/60</td>
<td>20/40</td>
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