

5. When light is reflected on a mirror:
- A. The angle of reflection is twice the angle of incidence.
 - B. The image formed by a plane mirror is laterally inverted and real.
 - C. Concave mirrors always form virtual images.
 - D. Convex mirrors always form erect images.
6. Prisms are incorporated in:
- A. Panfundoscope.
 - B. Goniolenses.
 - C. Keratometers.
 - D. Direct ophthalmoscopes.
7. The following technique is used for intraocular lens power calculation:
- A. Retinoscopy.
 - B. Indirect ophthalmoscopy.
 - C. B-Scan ultrasonography.
 - D. A-Scan ultrasonography.
8. Landolt's broken rings are used for testing:
- A. Visual Acuity.
 - B. Angle of squint.
 - C. Visual field.
 - D. Corneal radius of curvature.
9. A glasses prescription of + 1.5 DS / - 4.0 DC X 80 is equivalent to:
- A. - 2.5 DS / + 4.0 DC X 80.
 - B. - 2.5 DS / +4.0 DC X 170.
 - C. + 5.5 DS / - 4.0 DC X 80.
 - D. - 2.5 DS / - 4.0 DC X 170.

10. The following is true in myopia:
- A. Myopia can be reduced by flattening the central cornea.
 - B. Myopia is typically termed "axial" in the case of a patient with an axial length of 23 mm
 - C. Index myopia is caused when the nucleus of the lens undergoes a reduction in refractive index.
 - D. The far point of an uncorrected – 2.0 DS myope is at a theoretical distance of 20 cm.
11. Correction of unilateral aphakia:
- A. With spectacles causes anisokonia.
 - B. With spectacles gives a relative spectacle magnification of 1.1.
 - C. With contact lenses gives a relative spectacle magnification of 1.3.
 - D. With an intraocular lens gives a relative spectacle magnification of 1.1.
12. The following is true about contact lenses:
- A. A high plus contact lens has a central thin portion.
 - B. Hard lenses abolish lenticular astigmatism.
 - C. The haptic of a scleral lens is the corneal portion.
 - D. The base curve of a contact lens is the curvature of the central portion of the back surface of the lens.
13. The following is true in hyperopia:
- A. Hyperopia results when the posterior focal length of an eye is longer than its axial length.
 - B. Absolute hyperopia is the amount of hyperopia that can be overcome by accommodation.
 - C. Manifest hyperopia tends to decrease with age.
 - D. Latent hyperopia tends to increase with age.

14. The following is true about dissociated image tests:
- A. The Maddox wing dissociates the eyes at distance.
 - B. When the Maddox rod cylinders are horizontal, the image seen is also horizontal.
 - C. With a Maddox rod in the vertical orientation in front of the right eye, the left eye sees a horizontal red line.
 - D. Maddox rod may be used to determine cyclotropia.
15. The Placido disc:
- A. Is a convex disc with concentric black and white rings.
 - B. Has a central aperture in which a concave lens is mounted.
 - C. Is a quantitative measure of corneal curvature.
 - D. Can be used to detect keratoconus.

GOOD LUCK



Examination for February Semester
Diploma Degree
Physiology of The Eye
23/2/2021

Time allowed: 3 hours
Total marks: 30 marks
All questions to be attempted

A) Answer the following questions:

(3 points, 5 marks for each point)

1. Theories of accommodation and their clinical applications
2. Factors affecting corneal hydration and transparency
3. Blood retinal barriers: types and clinical value

B) MCQ: Choose only one answer:

(15 points, 1 marks for each point)

- 1) **Adaptation for vision in poor light is:**
 - a) Complete after 2-3 minutes
 - b) Due mainly to dilation of the pupil
 - c) Due to regeneration of rod but not cone pigment
 - d) Faster if red goggles are worn

- 2) **The cones in the retina differ from rods in that they are more:**
 - a) Numerous
 - b) Concerned with color vision
 - c) More sensitive under scotopic illumination
 - d) Affected by vitamin A deficiency

- 3) On entering a darkened room:**
- a) Threshold light intensity for the eye starts to rise
 - b) Adaptation is faster if a long period was spent in bright light before
 - c) First phase of retinal adaptation is mainly in the cones
 - d) First phase of retinal adaptation is mainly in the rods
- 4) Dilation of the pupil increases the:**
- a) Amount of light entering the eye
 - b) Refractive power of the eye
 - c) Depth of focus
 - d) Field of vision
- 5) During accommodation for near vision:**
- a) More light enters the eye
 - b) The curvature of the cornea increases
 - c) The depth of focus increases
 - d) The visual axes of the eyes diverge
- 6) Visual acuity is:**
- a) A measure of the sensitivity of the retina to light
 - b) Greater in a person with 6/12 vision than in one with 6/9
 - c) Greater using central than peripheral vision
 - d) Greater in normal than color blind people
- 7) When light is shone into one eye, the pupil:**
- a) Constricts even though its optic nerve has been cut
 - b) Responds due to sympathetic nerve activity
 - c) In that eye constricts and the opposite eye dilates
 - d) Does not respond if there is brainstem death
- 8) Glucose metabolism in the lens principally occurs by:**
- a. Anaerobic glycolysis
 - b. Aerobic metabolism
 - c. Hexose monophosphate shunt
 - d. Sorbitol pathway
- 9) Regarding the lens, the following statement is true:**
- a. Glucose is metabolized in the lens to generate ATP
 - b. Amino acids diffuse passively into the lens
 - c. Glutathione is the most actively transported amino acid into the lens
 - d. Lipids represent 10%-12% of the lens

10) In near reflex, the shortest duration occurs with:

- a. Far to near accommodation
- b. Near to far accommodation
- c. Reflex miosis
- d. Convergence response

11) All of the following are true about amino acids content of the lens except:

- a. Lens contains all types of amino acids
- b. Concentration of amino acids are higher than vitreous
- c. Not affected by aging, fasting or feeding protein-free diet
- d. Actively transported inside the lens by lens epithelium

12) In cortical cataract, there is:

- a. Increased protein content & increase in water insoluble fraction
- b. Increased protein content & decrease in water insoluble fraction
- c. Decreased protein content & increase in water insoluble fraction
- d. Decreased protein content & decrease in water insoluble fraction

13) Which of the following is not a monocular depth clue?

- a. Superimposed objects
- b. Linear perspective
- c. Angle of image disparity
- d. Light and shadow

14) Which of the following receptors suppress aqueous outflow?

- a. Alpha 2 agonists
- b. Beta adrenergic agonists
- c. Muscarinic antagonists
- d. Cholinergic antagonists

15) Arrangement of stromal lamellae contributes to corneal transparency can be explained by:

- a. Maurice theory
- b. Schwalbe's equation
- c. Imbert-Fick principle
- d. Holladay's equation

-- Good Luck --

Tanta University
Faculty of Medicine
Internal Medicine Department
Diploma of Ophthalmology (Semester 1)
February 2021



All questions must be answered
Time allowed: 3 hours
Total marks: 45

Give an account on the following:

- 1- Causes and complications of liver cirrhosis. (10)
- 2- Clinical picture and treatment of thyrotoxicosis. (10)
- 3- Causes and diagnosis of hemolytic anemia. (10)
- 4- A. Differential diagnosis of bilateral optic neuritis. (5)
- B. Etiology and clinical picture of facial palsy. (10)

سوف يعقد الإمتحان الشفوى والإكلينيكى إن شاء الله تعالى فى الساعة الثامنة صباحاً
يوم الثلاثاء الموافق ٢٠٢١/ ٣/٣٠ بمستشفى الأمراض الباطنة.

GOOD LUCK
