

Examination of Diploma Degree

Optics

Date: May- 2017



Tanta University
Faculty of Medicine
Ophthalmology Dept.

I-Write short notes on:

- 1- Types and correction of astigmatism.*
- 2- Duochrome test.*
- 3- Cross cylinder.*

II- Choose the correct answer:

1) The inverted Purkinje Sanson image is seen on:

- A. Anterior surface of the cornea*
- B. Anterior surface of the lens*
- C. Posterior surface of the lens*
- D. Posterior surface of the cornea*

2) For a converging lens, a light ray that is travelling parallel to the principal axis refracts

- A. Through the principal focus*
- B. Through the secondary focus*
- C. Through the optical center*
- D. Parallel to the principal axis*
- E. In line with the principal focus*

3) A cylindrical concave lens of 3 diopters with 180 degrees axis means that the astigmatism is:

- A. With the rule*
- B. Against the rule*
- C. Oblique*
- D. mixed*

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- 4) *A survivor from a ship wreck sees an image of a fish in the water. To catch it with her spear, she must*
- B. Aim above the image of the fish*
 - C. Aim below the image of the fish*
 - D. Aim at the image of the fish*
 - E. Aim behind the fish*
- 5) *A 35- year old man had near vision disturbances and 20/20 far vision. On retinoscopy he had a neutral point with + 3 lens. With spectacles of +2 diopters he could read easily and also he could watch TV clearly, the diagnosis is:*
- A. Presbyopia*
 - B. Ciliary spasm*
 - C. Hyperopia*
 - D. None of the above*
- 6) *On retinoscopy at a distance of 50 cm, no movement of the red reflex means that the eye is:*
- A. Myope 1 diopter*
 - B. Myope 2 diopters*
 - C. Emmetrope*
 - D. Myope 3 diopters*

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7) A 46- year old patient has a hypermetropia of 2 diopters for distant vision, what would happen to his near vision when his glasses slip down his nose?

- A. Gets distorted
- B. Becomes better
- C. Becomes worse
- D. Does not change

8) In indirect ophthalmoscopy:

- A. The field of view is larger than the field of illumination.
- B. The field of illumination is larger than the field of view.
- C. The field of view is equal to the field of illumination.

9) A cylindrical concave lens of 3 diopters with 180 degrees axis means that the astigmatism is:

- A. With the rule
- B. Against the rule
- C. Oblique
- D. irregular

10) Direct ophthalmoscope projects:

- A. Virtual, erect and magnified image
- B. Real, erect and magnified image
- C. Real inverted and magnified image
- D. Virtual inverted and magnified image

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- 11) When a person removes his glasses to be able to read, this means that he is:
- A. Hypermetrope
 - B. Astigmatic
 - C. Myope with good accommodation
 - D. Myope and presbyope
- 12) When a myopic person is always pushing his glasses backwards nearer to his eyes, this means that his glasses are:
- A. Perfect
 - B. Overcorrected
 - C. Undercorrected
 - D. None of the above.
- 13) A prism base out is used to relieve diplopia due to:
- A. Esotropia
 - B. Hypertropia
 - C. exotropia
 - D. hypotropia
- 14) Sph +2,25 cyl -1,25 axis 90
The type of astigmatism is:
- A. mixed.
 - B. compound myopic.
 - C. simple hyperopic.
 - D. compound hyperopic.

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15) *Astigmatism is:*

- A. *Axial ametropia*
- B. *Curvature ametropia*
- C. *Index ametropia*
- D. *Accommodative ametropia*

BEST WISHES



Tanta University
Faculty of Medicine
Internal Medicine Department
Diploma of Ophthalmology (First Part)
April 2017

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

Give an account on the following:

- 1- Causes and management of upper gastrointestinal bleeding. (10)
- 2- Chronic complications of diabetes mellitus. (10)
- 3- Causes and diagnosis of iron deficiency anemia. (10)
- 4- Differential diagnosis of internuclear ophthalmoplegia. (15)

يبدأ الإمتحان الشفوي والإكلينيكي فى الساعة الثامنة صباحا يوم الخميس
الموافق ٢٠١٧/٥/١٨ بمستشفى الأمراض الباطنة.

GOOD LUCK

**Tanta University
Faculty of Medicine**

General Surgery_Exam

دبلوم طب وجراحة العيون

Exam May 2017

All questions to be answered

1. Discuss the complications of blood transfusion

(20 degrees)

2. Discuss the pathophysiology, clinical picture and management of hypovolemic shock

(20 degrees)

3. Discuss the clinical presentation, investigations and management of a case of deep vein thrombosis

(20 degrees)

4. Discuss the ocular manifestations of thyrotoxicosis

(20 degrees)

5. Discuss the etiology and management of postoperative fever

(20 degrees)

امتحان الشفوي والعملي يوم ٢٠١٧/٥/٢٠ بقسم الجراحة العامة بالمستشفى التعليمي الجديد الساعة الثامنة صباحا

Good luck

Tanta University

FACULTY OF MEDICINE

DEPARTMENT OF OPHTHALOMOLGY



Examination for Diploma Degree
Diploma Degree in ophthalmology

Physiology

A-All question to be answered:

-Discuss shortly the following

1-physiological factors contributing for corneal clarity. (5 marks)

2-Function of retinal pigment epithelium. (5 marks)

3-Panum's area and fixation disparity. (5 marks)

B-All question to be answered:

-Which of the following statement are correct?

1. The ciliary body:

- receives 7% of total ocular blood flow
- contains pigmented ciliary epithelial cells that are responsible for aqueous secretion
- receives parasympathetic nerve supply via the long ciliary nerves
- contracts during accommodation

2. Phototransduction:

- occurs in pineal gland
- involves the conversion of light energy into electrical energy
- involves capturing of the photons by the inner membrane of the photoreceptors
- requires a minimum of 10 photons to become activated

3. The following are true about electroretinogram :

- a. a1 wave originates in rods
- b. a2 wave originates in cones
- c. b wave originates in bipolar cells
- d. amacrine cells generate the oscillatory potentials

4. With regard to the cornea:

- a. photokeratitis occurs with wavelength of 270nm
- b. microvilli are found in the outer layer of the epithelium
- c. the turnover of the corneal epithelium typically takes 30 days
- d. the corneal epithelium is about 10 layers in thickness

5. True statements about the aqueous include:

- a. the production is about 2 ul/min
- b. the endothelium contribute to the production of aqueous
- c. its production decreases with age
- d. it has the same osmolarity as the plasma

6. The following conditions can affect the pupil size:

- a. iris colour
- b. fatigue
- c. exercise
- d. refractive error

7. In Argyll-Robertson's pupils:

- a. the pupils are irregular
- b. iris atrophy are common
- c. there are absent tendon reflexes
- d. the lesion is in the mid-brain
- e. the pupils react poorly to atropine

8. The following are true about the pupils:

- a. pupil size is largest in adolescence
- b. physiological anisocoria is found in 20% of the population
- c. the latent period of the pupil reaction to light ranges from 0.2 to 0.5s
- d. afferent pupil defect is present in complete third nerve palsy

9. The retinal pigment epithelium (RPE):

- a. is sensitive to hypervitaminosis A
- b. isomerizes all-trans-retinal to 11-cis-retinol
- c. does not undergo mitosis in response to injury
- d. secretes the outer layer of the basal lamina that forms the Bruch's membrane.

10. The following are found in higher concentration in the tear than in the serum:

- a. sodium
- b. potassium
- c. Ig G
- d. glucose

11. The corneal stroma:

- a. measures 500 um thick
- b. transmits 90% of the incoming light
- c. derives most of its oxygen from the precorneal tear film
- d. is acellular which accounts for its transparency

12. The following proteins found in the tear of a normal person have antibacterial activity:

- a. lysozyme
- b. lymphokines
- c. betalysin
- d. immunoglobulin M

13. The following are true about electro-retinography?

- a. flicker ERG can be used to test cone function
- b. ERG is normal in patient with macular degeneration
- c. the a-wave of ERG is produced by the ganglion cells
- d. the b-wave is produced by the photoreceptor cells

14. Stereopsis;

- a. present at birth
- b. fully developed by 4 months
- c. requires a level of tonic vergence
- d. can be eliminated by an artificially induced squint

15. Vit A;

- a. fat soluble vitamin
- b. xerosis is a feature of vit A deficiency
- c. may be stored in liver
- d. the provitamine is converted into retinol in the small intestine

-----GOOD LUCK-----