

# Histology

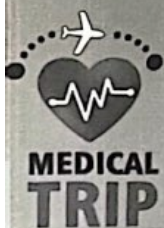
level 2  
CNS  
2023

# MCQs

The Eye

L 2

*DR. M. Yusuf*





## MCQ on Eye

- 1. What type of glands are the glands of Moll:-**
  - a) Ceruminous gland
  - b) Endocrine gland
  - c) Mixed gland.
  - d) Modified sweat gland
  - e) Salivary gland
- 2. During night when the intensity of light is low, object is detected by:-**
  - a) Optic disc
  - b) Cones
  - c) Ganglion cells
  - d) Lens
  - e) Rods
- 3. Which is true regarding meibomian glands:-**
  - a) They open on lid margin by a duct behind the grey line
  - b) They are modified sweat glands
  - c) Their obstruction leads to sty
  - d) They lie at the roots of eye lashes
  - e) They communicate with hair follicles
- 4. Lacrimal sac:-**
  - a) Lined by pseudostratified columnar cells
  - b) Drains tears from nasolacrimal duct
  - c) Opens in the nasal cavity
  - d) Is responsible for tears formation
  - e) Lined by columnar cells
- 5. The refractive media of the eye includes:-**
  - a) Corneal and sclera
  - b) Lens and iris
  - c) Retinal and vitreous body
  - d) Cornea and lens
  - e) Ciliary body and processes





## Eye

6. Which of the following cells share in the formation of the outer limiting membrane:-

- Muller cells and ganglion cells
- Amacrine cells and horizontal cells
- Bipolar cells and ganglion cells
- Muller cells, rods and cones
- Ganglion cells and horizontal cells

7. Regarding the rods of retina:-

- They are less in number than cones
- They are present in the ganglion cell layer
- Each rod synapses with more than one bipolar nerve cell
- They are conical in shape
- They are adapted to function in bright light

8. The cornea is:-

- Transparent
- Opaque
- Represents the inner nervous layer of the eye
- Covers the posterior 5/6<sup>th</sup> of eyeball
- Shows irregular arrangement of its cells and fibers

9. Regarding the choroid:

- Its outer most layer contains dense C.T
- It is formed of three layers
- It supports the retina and absorbs excess light
- Its outer most layer is Bruch's membrane
- Choriocapillaries damage does not cause damage to the retina

10. Regarding the iris:

- Its posterior vessel layer is more pigmented but less vascular
- Its anterior stromal layer is less pigmented but more vascular
- It is present between the vitreous body and posterior chamber
- It contains two muscles: constrictor and dilator papillae
- Ciliary processes are attached to it





**Regarding the ciliary body:-**

- a) Form the vitreous humors.
- b) Ciliary processes are formed of a C.T core covered by 2 layers of non-pigmented epithelium.
- c) Formed of C.T rich in vessels and melanocytes.
- d) Elastic fibers connect the ciliary processes to the lens.
- e) Ciliary muscle arranged in one direction.

**12. Cornea is characterized by the following:**

- a) It forms the anterior 5/6 of the anterior fibrous coat of the eye.
- b) Anterior surface is covered by simple squamous epithelium.
- c) It is richly supplied with blood vessels.
- d) It consists of 5 layers.
- e) It has the lowest sensory supply of any eye tissue.

**13. The type of epithelium that cover the ant. surface of cornea:**

- a) Simple squamous epithelium
- b) Simple cubical epithelium
- c) Simple columnar epithelium
- d) Stratified squamous epithelium
- e) Pseudostratified columnar epithelium

**14. The layer that covers the post. surface of cornea:**

- a) Corneal epithelium
- b) Bowman's membrane
- c) Substantia propria
- d) Descemet membrane
- e) Descemet endothelium

**15. The thickest layer of the cornea:**

- a) Corneal epithelium
- b) Bowman's membrane
- c) Substantia propria
- d) Descemet membrane
- e) Descemet endothelium





## Eye

16. Injury of which corneal layer always leaves a scar causing opacity:-
- Corneal epithelium
  - Bowman's membrane
  - Substantia propria
  - Descemet membrane
  - Descemet endothelium
17. The structure that gives the color of the eye:-
- Cornea
  - Choroid
  - Iris
  - Lens
  - Vitreous
18. The structure of the eye which is responsible mainly for the formation of aqueous humor:
- Cornea
  - Lens
  - Choroid
  - Ciliary process
  - Anterior surface of iris
19. The most outer layer of the choroid:
- Epichoroid or Suprachoroid
  - Vessel layer
  - Choriocapillaries
  - Bruch's membrane
  - Pigmented epithelium
20. The inner most component of the choroid:
- Epichoroid or Suprachoroid
  - Vessel layer
  - Choriocapillaries
  - Bruch's membrane
  - Pigmented epithelium





The junctions between which cells forms blood retinal barrier:

- a) Rods & cones
- b) Pigmented layer of retina
- c) Ganglion cells
- d) Bipolar cells
- e) Muller cells

22. Which cell has processes extend from inner to outer limiting membrane:

- a) Bipolar cells
- b) Amacrine cells
- c) Muller cells
- d) Horizontal cells
- e) Ganglion cells

23. Which cell has axons that form the fibers of the optic nerve:

- a) Bipolar cells
- b) Amacrine cells
- c) Muller cells
- d) Horizontal cells
- e) Ganglion cells

24. Meibomian glands are located in:

- a) Skin of eyelid
- b) Tarsus of eyelid
- c) Bulbar conjunctiva
- d) Palpebral conjunctiva
- e) Eye lashes

25. Which of the followings is the tear secreting gland:

- a) Meibomian gland
- b) Gland of Moll
- c) Gland of Zeis
- d) Lacrimal gland
- e) Tarsal glands





## Eye

26. **Lacrimal gland is formed of:**
- Cubical cells of serous type
  - Cubical cells of mucinous type
  - Columnar cells of serous type
  - Columnar cells of mucinous type
  - Pseudostratified columnar ciliated cells
27. **Transparency of the cornea is due to the following causes:**
- The complete dehydration of cornea by Descemet's endothelium.
  - The irregular arrangement of collagen fibrils.
  - The refractive indices of cells, fibers and matrix are different.
  - The cornea has no blood vessels.
  - The irregular arrangement of cells of the covering epithelium.
28. **The sclera:**
- Forms the posterior 1/6 of the anterior fibrous coat of the eye.
  - Is formed of dense C.T fibers regularly arranged.
  - Is poorly vascular.
  - Is opaque.
  - Limbus is junction between sclera and choroid.
29. **The sclera is opaque because:**
- It is poorly supplied with blood capillaries.
  - The regular arrangement of its C.T fibers.
  - The presence of a great amount of water.
  - The refractive indices of all its elements are equal.
  - Regular arrangement of cells
30. **Canal of Schlemm is a circular canal surrounding:**
- Cornea
  - Sclera
  - Limbus
  - Lens.
  - Choroid.



The following structure in the eye is avascular:

- Cornea.
- Iris.
- Choroid.
- Ciliary body.
- Retina.

32. The iris:

- Present between Vitreous body and posterior chambers of the eye.
- Its posterior surface is formed of discontinuous layer of fibroblasts.
- The dilator pupillae is formed of striated muscle Fibers.
- Is provided with two muscles constrictor pupillae and dilator pupillae.
- More vascular but less pigments in the anterior stromal layer.

33. The lens:

- Is opaque and vascular.
- Is Covered from outside by the serous membrane.
- Subcapsular cubical cells present on the anterior surface of the lens.
- Lens fibers are remnants of cells filled with elastins.
- Transparent biconcave disc.

34. Which of the following layers of retina contains synapse between axons of the bipolar nerve cells and dendrites of ganglion cells:

- Ganglion cell layer
- Inner nuclear layer
- Inner plexiform layer
- Outer nuclear layer
- Outer plexiform layer

35. The horizontal cells are:

- Association neurons.
- Present in the ganglion cell layer.
- Synapse with cone cells at one site & with bipolar cells at the other site
- Synapse with ganglion cells.
- Lying near the inner plexiform layer.





## Eye

36. Amacrine cells of the retina are:
- Present in the outer nuclear layer.
  - Sensory neurons.
  - Have axons and dendrites
  - Synapse with axons of bipolar and dendrites of ganglion cells.
  - Lying close to the outer plexiform layer.
37. Which of the following layers of retina contains cell bodies of bipolar, horizontal, amacrine and Muller cells:-
- Ganglion cell layer
  - Inner nuclear layer
  - Inner plexiform layer
  - Outer nuclear layer
  - Outer plexiform layer
38. The function of blood retinal barrier is to limit access of substances of small molecular weight from:
- Epichoroid
  - Choriocapillaries
  - Vitreous
  - Aqueous humor
  - Melanocytes
39. Inner limiting membrane of retina is formed of processes of:
- Muller cells
  - Bipolar cells
  - Amacrine cells
  - Horizontal cells.
  - Rod and cone cells
40. The eye lids:
- The skin covering them is rich in hair.
  - Covered by delicate thin skin from outside and bulbar conjunctiva from inside.
  - Contain tarsal plate which is loose connective tissue.
  - Contain the orbicularis oculi muscle.
  - Contain modified sebaceous gland called gland of Moll.





**The lacrimal glands:**

- Consists of columnar mucus secreting cells.
- Formed of flat cells.
- Secretory cells surrounded by less developed myoepithelial cells.
- Secrete tears rich in lysozymes.
- Modified sebaceous glands.

**42. The lining epithelium of fornix is:**

- Stratified squamous non keratinized
- Stratified squamous keratinized
- Simple columnar with few goblet cells.
- Stratified columnar with few goblet cells
- Stratified columnar with many goblet cells

C

A

D

C

D

D

A

B

C

D

C

A

B

E

C

B

B

D

A

D

C

D

C

D

D

D

D

D

D

E





## Eye

**Answers**

1	D	15	C	29	C
2	E	16	B	30	C
3	A	17	C	31	A
4	A	18	D	32	D
5	D	19	A	33	C
6	D	20	D	34	C
7	C	21	B	35	A
8	A	22	C	36	D
9	C	23	E	37	B
10	D	24	B	38	B
11	C	25	D	39	A
12	D	26	C	40	D
13	D	27	D	41	D
14	E	28	D	42	D

