



Candidate Number

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**OPHTHALMIC BASIC SCIENCE EXAMINATIONS
ANATOMY
19 September 2008**

Duration of paper:

3 hours

Total Marks: 120

Total No. of questions:

26 (Sections A and B)

- ◆ Candidates must attempt all questions
- ◆ If you cross out an area of your own writing, it will not be considered by the examiners
- ◆ Please write legibly

SECTION A

- ◆ Write your answers in the spaces provided using LEGIBLE writing, use diagrams and point form where appropriate
- ◆ All twenty questions should be attempted.
- ◆ Each question is worth 3 marks.

Question 1

Name the bones which form the medial orbital wall.

Question 2

List the anatomical structures transmitted through the inferior orbital fissure.

Question 3

State the nerves which travel in the lateral wall of the cavernous sinus.

Question 4

Name the arteries that supply the Optic Radiation.

Question 5

List the three prominent nuclei that characterize a section through the brainstem at the level of the superior colliculus.

Question 6

Outline the cutaneous sensory innervation of the skin of the upper eyelid.

Question 7

Describe the lymphatic drainage of the upper and lower eyelid.

Question 8

Describe the anatomical features which account for the blood-retina barrier.

Question 9

List the afferent fibres to the abducent (VI) nucleus.

Question 10

List the branches of the nasociliary nerve.

Question 11

a. Name the structures which traverse the superior orbital fissure **outside** the common tendinous ring (annulus of Zinn)

b. Name the structures which traverse the superior orbital fissure **inside** the common tendinous ring (annulus of Zinn)

Question 12

Name five ocular tissues derived from Neuroectoderm

Question 13

Name the ten layers in an ordinary 'light microscopic' histologic section of the human retina.

Question 14

State the named anatomical structures, from anterior to posterior, visible upon gonioscopic examination of the corneairidial angle of the anterior chamber of the eye.

Question 15

Define the attachments of the levator palpebrae superioris aponeurosis.

Question 16

State where the following cranial nerves leave the brainstem:

a. Oculomotor (III) nerve.

b. Trochlear (IV) nerve.

c. Abducent (VI) nerve.

Question 17

Locate three important anastomoses between branches of the Ophthalmic Artery and the External Carotid Artery.

Question 18

Describe the innervation AND the attachments (origin and insertion) of the smooth muscle of the upper eyelid.

Question 19

State the arterial supply of the ciliary body.

Question 20

State the layers described within Bruch's membrane of the choroid.

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SECTION B

- ◆ This section contains six (6) short essays
 - ◆ Each question is worth 10 marks
 - ◆ Candidates must attempt all questions
 - ◆ Make sure to put your candidate number on the top of each page
 - ◆ Start a new page for each question
 - ◆ Do not write on the reverse of any answer booklet page
 - ◆ Write your answers in the answer booklet using LEGIBLE writing
 - ◆ Labelled diagrams and common abbreviations may be used where appropriate
 - ◆ If you cross out an area of your own writing, it will not be considered by the examiners
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Question 1

Describe the microanatomy of the five layers of the cornea.

Question 2

Describe the microanatomy of the Retinal Pigment Epithelium

Question 3

Give an account of the relations of the Optic Chiasm

Question 4

Give an account of the gross anatomy, attachments, innervation and function of the inferior oblique muscle.

Question 5

Describe the neural pathway involved in the pupillary light reflex.

Question 6

Give an account of the orbicularis oculi muscle, including the attachments, innervation and action.

END OF PAPER: SECTION B