



Name :

Roll No. :

Invigilator's Signature :

CS/B.OPTM/SEM-2/BO-202/2010

2010

PHYSIOLOGY (OCULAR)

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$
 - i) An individual having Trichromatic vision refers to
 - a) Congenital colour blindness
 - b) Acquired colour blindness
 - c) Normal colour perception
 - d) Defective colour perception.
 - ii) Precorneal Tear film has
 - a) two layers
 - b) three layers
 - c) four layers
 - d) five layers.

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- iii) Retina has histologically
- a) 7 layers
 - b) 5 layers
 - c) 2 layers
 - d) 10 layers.
- iv) Vitreous is situated
- a) behind the lens
 - b) within the posterior segment of the eye
 - c) in close proximity of internal limiting membrane of retina.
 - d) all of these.
- v) Central corneal thickness is
- a) more than peripheral thickness
 - b) same as peripheral thickness
 - c) less than peripheral thickness
 - d) all of these.
- vi) The constrictor pupillae is supplied by
- a) Trigeminal nerve
 - b) Cervical sympathetic nerve
 - c) Oculomotor nerve
 - d) Lacrimal nerve.



vii) Longest extraocular muscle is

- a) Medial rectus
- b) Superior oblique
- c) Superior rectus
- d) Inferior oblique
- e) none of these.

viii) Cone cells are responsible for

- a) Photopic vision
- b) Scotopic vision
- c) Peripheral vision
- d) none of these.

ix) Gland of Wolfring is

- a) Lacrimal gland
- b) Salivary gland
- c) Pituitary gland
- d) Accesory lacrimal gland.

x) "Yellow spot" refers to

- a) Physiological blind spot
- b) Choroid
- c) Macula
- d) Optic nerve.

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GROUP – B
(Short Answer Type Questions)

Write short notes on any *three* of the following.

3 × 5 = 15

2. Factor responsible for corneal transparency.
3. Light reflex pathway.
4. Labelled diagram of normal human rod and cone cells.
5. Corneal endothelium.

GROUP – C
(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

6. Describe the formation, circulation and drainage of aqueous humour. Use a labelled diagram. 12 + 3
7. a) Give the mechanism by which the eye focuses an image on the retina.
b) Mention the regional peculiarities of the retina. 8 + 7
8. a) Describe the (i) insertion (ii) functions of all extraocular muscles (use a tabular form).
b) Describe the functions of the pupil. 12 + 3
9. What is the amplitude of accommodation ? Describe the mechanism of accommodation and the ocular changes that occur during accommodation. 3 + 12

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