# POSTGRADUATE INSTITUTE OF MEDICINE UNIVERSITY OF COLOMBO

### MD (OPHTHALMOLOGY) MODULE II EXAMINATION – JUNE 2015

Date: - 23<sup>rd</sup> June 2015

Time: -1.00 p.m. - 2.30 p.m.

### STRUCTURED ESSAY PAPER I

Answer all questions.

Answer each question in a separate book (Question 1,2, 3.1 and 3.2.)

1.

- 1.1. Describe the anatomy of the optic nerve head (illustrate your answer with diagrams). (70%)
- 1.2. Briefly outline the embryological events of the development of the optic nerve. (30%)

2.

2.1.

- 2.1.1. Discuss the anatomy of the lacrimal drainage (excretory) system. (70%)
- 2.1.2. List the anatomical features of clinical importance in relation to the lacrimal drainage (excretory) system. (15%)
- 2.2. Explain briefly the embryological development of the **lacrimal** system. (15%)

- 3.
- 3.1. A 50 year old male patient presents with left sided visual loss.
  - 3.1.1. List the imaging modalities that would help in arriving at a diagnosis. (20%)
  - 3.1.2. Briefly discuss what you would look for in each modality, with their advantages and limitations. (30%)
- 3.2. Samanmalee is a 5 year old girl who is found to have Retinitis Pigmentosa (RP) and Sensorineural Deafness (SND).

The following is her family history.

Both her parents are unaffected.

Her father has three brothers. One of them is also affected with Retinitis Pigmentosa and Sensorineural Deafness. His other two brothers are well. Her father's parents are well.

Samanmalee's mother has an identical twin sister who is well and she has a son and daughter who are also well. Samanmalee's mother's parents are first cousins and both are well.

3.2.1. Draw this family tree

(10%)

- 3.2.2. State two (02) possible modes of inheritance of RP and SND in this family (05%)
- 3.2.3. State the recurrence risk in Samanmalee's siblings for the two modes of inheritance stated in the answer above (05%)
- 3.2.4. Briefly discuss how you would explain the recurrence risk of RP and SND in Samanmalee's future siblings. (20 %)
- 3.2.5. List two (02) genetic investigations for Samanmalee. (10 %)

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### MD (OPHTHALMOLOGY) MODULE II EXAMINATION – JUNE 2015

**Date** :- 23<sup>rd</sup> June 2015

Time: -3.00 p.m. - 4.30 p.m.

#### STRUCTURED ESSAY PAPER II

Answer all questions.

Answer each question in a separate book (Question 1,2, 3.1 and 3.2.)

- 1. A 35 year old male is referred to you by a general practitioner suspecting colour blindness.
  - 1.1. Discuss the physiological basis of colour vision. (70%)
  - 1.2. Briefly explain the physiological basis of the tests done in arriving at a diagnosis. (30%)
- 2. Write short notes on physiological basis of the following
  - 2.1. Light near dissociation. (40%)
  - 2.2. Transport of topical ophthalmic drugs into the anterior chamber. (30%)
  - 2.3. Pannum's Fusional area. (30%)
- 3.1. Discuss the difference between
  - 3.1.1. Clinical significance and Statistical significance. (25%)
  - 3.1.2. Selection bias and Confounding bias. (25 %)

Contd..../2-

3.2.

- 3.2.1. List five (05) different pathological lesions of a patient presenting with recurrent upper eyelid lump. (10%)
- 3.2.2. How do you send the sample for following tests

(15%)

- (a) Microbiology
- (b) Fungal studies
- (c) Histology.
- (d) Frozen section.
- (e) Electron Microscopy.
- 3.2.3.
  - (a) Describe the standard orientation of the excision biopsy sample. (10%)
  - (b) Briefly indicate the importance of proper identification of the patient. (05%)
  - (c) Discuss the importance of adherence to laboratory standard protocol (guidelines) in sending the specimen to the laboratory.

    (10%)