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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (OPHTHALMOLOGY) OPHTHALMIC BASIC SCIENCES
EXAMINATION JULY 2020

Date :- 21st July 2020

Time :-9.00 a.m – 10.30 a.m

STRUCTURED ESSAY PAPER I

Answer all three (03) questions.

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

1. 1.1 Describe the anatomy of the upper eye lid (Illustrate the answer with diagram/s) (70%)
1.2 Discuss in brief the defects associated with abnormal development of upper eye lid (30%)
2. 2.1. Describe the anatomy of the iris (80%)
2.2. List the embryological origins of each part of the iris (20%)
- 3.1. A 60-year-old patient was suspected to have an intracranial vascular tumour.
3.1.1. List the radiological modalities that you would recommend to diagnose the above condition (10%)
3.1.2. Describe the precautions you need to take before performing each investigation mentioned above (40%)
- 3.2. A 1-month old baby with microcephaly and microphthalmia is referred for ophthalmological evaluation. She has a karyotype 46,XX.
3.2.1. List the types of genetic disease (10%)
3.2.2. Outline, giving reasons, how the family history can help you determine the genetic aetiology of this infant's condition (25%)
3.2.3. Briefly outline the limitation of karyotyping (15%)

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EXAMINATION JULY 2020

Date :- 21st July 2020

Time :- 11.00 a.m – 12.30 p.m

STRUCTURED ESSAY PAPER II

Answer all three (03) questions.

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

1.

- 1.1. Describe the physiological basis of maintenance of transparency of the lens (80%)
- 1.2. List the changes that occur in the lens during accommodation (20%)

2.

- 2.1. Describe the physiological basis of the pupillary light reflex (70%)
- 2.2. Describe briefly the physiology of **light near dissociation** (30%)

3.1. A case control study was conducted to determine whether low social status is a risk factor for Hepatitis A infection. The study reported an odds ratio of 3.5, 95% confidence interval between 2.3 to 5.5 and p-value <0.001.

3.1.1 Define the study population of the above study (10%)

3.1.2 Interpret the odds ratio and 95% confidence interval (20%)

3.1.3 What is the purpose of reporting a confidence interval? (10%)

3.1.4 Name a statistical method to control the confounding effects of the above association (10%)

Contd.../2

3.2.

3.2. 55-year old female patient presented to the eye clinic with recurrent upper eye lid swelling over a year. Surgical intervention was performed on two occasions. Biopsy was performed on the 3rd recurrence.

3.2.1. Describe the possible pathological conditions of eyelid swelling in the above patient. (30%)

3.2.2. Describe how you would arrange laboratory investigations of the excision biopsy sample to get the maximum pathological information about the lesion. (20 %)