

II – B. OPTOM. SEM– III : WINTER - 2018

SUBJECT: VISUAL OPTICS

Day: Monday
Date: 26/11/2018

W-2018-3723

Time: —
Max Marks. 20

N.B. :

Section A is given on **SEPARATE** sheet and has to be answered on **SAME** sheet. This sheet should be completed within the first **30** minutes of starting of the examination. This sheet with Section A only will be collected by supervisor.

Seat No. _____

SECTION A

Q.1 Fill in the blanks: **(10)**

- 1) In Sturm's conoid, the distance between two focal lines is called _____.
- 2) Define near point of accommodation _____.
- 3) The refractive index of cornea is _____.
- 4) Gradual decrease in amplitude of accommodation is the main cause of _____.
- 5) Far point of corrected myopic eye (-3.00DS) is located at _____.
- 6) Principle of Worth Four Dot Test is _____.
- 7) The primary purpose of binocular balancing is to _____.
- 8) Corneal thickness is measured by _____.
- 9) When accommodation is relaxed by giving distance target, the type of retinoscopy is _____.
- 10) Gullstrand's schematic eye has total refractive power of _____ D.

Q.2 State TRUE or FALSE. **(10)**

- 1) As per Schematic eye , axial length is 24 mm & secondary foocal point is at 24.38 mm. So the refractive condition of eye is presbyopia.
- 2) Refraction taking place at tear cornea interface is approximately 5D.
- 3) Patient with near vision difficulty is always presbyopic.
- 4) In 'C' chart gap of letter 'C' will form an angle of 1 minute of arc on retina at a distance of 20 feet.
- 5) High contrast can increase visual acuity in some cases.
- 6) Fogging is not possible for myopic eyes.
- 7) +3.00 DS/-1.25 DCX90 is compound hyperopic astigmatism.
- 8) K- reading 40 D, axial Length 22.5mm & refractive error is -3.50 DS, type of myopia is Index myopia.
- 9) A beam of light having zero vergence is said to be convergent.
- 10) In aphakia nodal point of eye shifts backwards.

Total Marks obtained: _____

Signature of Invigilator

Signature of Examiner

II - B Optom Sem-III : Winter - 2018.

SUBJECT: VISUAL OPTICS

Day: Monday
Date: 26-11-2018

Time: 10:00AM TO 1:00PM.
Max Marks: 50

W-2018-3723

N.B. :

- 1) There are **THREE** Sections as
Section-A= Objective type questions =20 marks
Section -B= Long questions =20 marks
Section -C= Short questions =30 marks
- 2) Section A is given on **SEPARATE** sheet and has to be answered on **SAME** sheet. This sheet should be completed within the first **30** minutes of starting of the examination. This sheet with Section A only will be collected by supervisor.
- 3) Section-B has 3 long questions and **ANY TWO** questions have to be answered on **SEPARATE** answer sheet.
- 4) Section-C has 6 short questions and **ANY FIVE** questions have to be answered on **SEPARATE** answer sheet.
- 5) Draw neat labeled diagrams **WHEREVER** necessary.

SECTION B

Q.1 Attempt **ANY TWO** of the following: **(20)**

- a) State the purpose of dynamic retinoscopy & explain various methods of dynamic retinoscopy in detail.
- b) Write functional classification of hypermetropia. Explain role of cycloplegic refraction in finalizing prescription of hypermetropia
- c) Enlist subjective refraction techniques used for finalizing astigmatic errors. Explain any two in detail.

SECTION C

Q.2 Attempt **ANY FIVE** of the following: **(30)**

- a) Write a short note on Knapp's law & explain its implementation in brief.
- b) Explain the terms
i) Straddling ii) Presbyopia iii) Convergence insufficiency
- c) Explain Duochrome test and its significance.
- d) Sign convention and significance in optometry
- e) Write a note on sources of errors in retinoscopy.
- f) Define accommodation. Explain range, amplitude far point & near point of accommodation?

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