

II - B. Optom. Sem - IV : Winter - 2018
SUBJECT: OPTICS AND REFRACTION

Day: Thursday

Date: 22-11-2018

W-2018-3726

Time: -

Max. Marks: 20

N.B:

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

Seat No.: _____

SECTION-A

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

- 1) Patients wearing _____ type of bifocal design will not face differential displacement at reading level.
- 2) The refractive index of Anti-Reflection coating to be given on polycarbonate lens should be _____.
- 3) Relative spectacle magnification is define as _____
_____.
- 4) _____ Spectacle is advised for bed-ridden patients.
- 5) The enhanced near vision lens available from Zeiss is _____
_____.
- 6) In drop ball test a metal ball is dropped from height of _____ and the lens should have minimum thickness of _____.
- 7) _____ tint is given for indoor use.
- 8) Maximum high index available in plastic lens is _____.
- 9) _____ PAL lenses are preferred for outdoor sports.
- 10) Corrective lenses with adequate parameter changes for correcting Anisometropia are known as _____.

P.T.O.

Q.2 State True or False. If false give reasons:

(10)

- 1) Lenticular lenses reduce distortion.
- 2) Every CR ARC lens has Hard Coat beneath the AR coat.
- 3) In nystagmus patient, the base direction of the prism is towards the Null point.
- 4) SRC is not required for mineral lenses.
- 5) The contact angle of a surface with hydrophobic coating is less than 90° degree.
- 6) While fitting bifocal lenses if the head posture of the patient is chin up, the segment height should be increased.
- 7) All ARC lenses have 100% UV protection.
- 8) Fresnel's lenses are the best option for correcting a student having progressive myopia with 10.00D.
- 9) Varilux physio has atoric Surface.
- 10) Segment height of a 22mm Kryptok bifocal lens depends on the frame in which the lens is fitted.

Total Marks Obtained:

Signature of the Invigilator: _____

Signature of the Examiner: _____

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II- B. Optom. Sem-IV : Winter-2018
SUBJECT: OPTICS AND REFRACTION

Day: Thursday
Date: 22-11-2018

Time: 10.00 A.M. To 1.00 P.M.
Max. Marks: 70

W-2018-3726

N.B:

- 1) There are **THREE** Section as:
Section - A = Objective type questions = 20 marks
Section - B = Long questions = 20 marks
Section - C = Short questions = 20 marks
- 2) Section A is given on a **SEPARATE** sheet and has to be answered on the same sheet. This sheet should be completed within first 30 minutes of starting of the examination. This sheet with Section A only will be collected by the Supervisor.
- 3) Section- B has long questions and **ANY TWO** questions have to be answered on **SEPARATE** answer sheet.
- 4) Section -C has 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)**

- 1) Explain the optical principle of Antireflection coating. Also explain its indication, uses, advantages and disadvantages.
- 2) Write in detail about lenses for Anisometropia.
- 3) Describe in detail all steps involved in ordering till final dispensing of PAL's.

SECTION-C

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

- 1) Write a short note on Curve variation factor.
- 2) Give your detailed recommendation for following:
 - i) Cyclist who has - 6.00DS in both eyes.
 - ii) Mountaineer BE - 2.00DS/ -1.00 DC X 180
Near Add + 2.00DS
- 3) Write a short note on Lenticular lenses.
- 4) Write a short note on Hydrophobic and Oleo phobic coating.
- 5) Write a short note on Hemianopic and Recumbent spectacles.
- 6) Explain Fresnel's principle, write indications, advantages and disadvantages of Fresnel's lenses.

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