

II – B. Optom. SEM – III : SUMMER - 2022
SUBJECT : DISPENSING OPTICS (II)
S-837-2022

Note :

Section – A is given on separate sheet and has to be answered on same sheet. This sheet should be completed within first 30 minutes of starting of examinations. This sheet with Section – A only will be collected by the Supervisor.

Seat No.: _____

Day : Friday
Date : 05.07.2022
Max. Marks: 20

SECTION – A

Q. 1 Fill in the blanks: **(20)**

- a) _____ is a predictor of how much polarized light will be transmitted by an obliquely oriented polarizing filter.
- b) _____ is the standard technology for the manufacture of glass photochromic lenses.
- c) _____ is used for optical bleaching in photochromic lenses.
- d) If a Photo Gray Extra lens darkens down to 11 % transmission if 4 mm thick, it will darken to _____ % if 2 mm thick.
- e) Discomfort glare occurs when _____
- f) The refractive index of CR-39 material is _____
- g) The _____ bridge has fixed nose pads attached at the back to increase the weight bearing area of the frame.
- h) _____ frame material becomes brittle with age.
- i) A certified beta titanium frame should contain _____
- j) In a frame marked 1/10 12 K GF, 12 K stands for _____
- k) If the distance PD is 68 and the near PD is 58, then the segment inset for the each eye is _____
- l) In cemented bifocals, _____ & _____ cements are used.
- m) The PAL wearer has to hold the reading material to one side in order to read. The possible cause would be _____
- n) A _____ degree pantoscopic angle is recommended to PAL wearer.
- o) In PAL, areas of equal cylinder power which are plotted with connecting lines are known as _____
- p) PRP in progressive lenses stands for _____
- q) If distance power – 3.00 DS/-2.00DC X 90, near add is + 1.00 DS then intermediate power is _____
- r) Percival form lens corrects _____
- s) Crown glass is made of _____
- t) Polycarbonate absorbs UV radiation upto _____ without any additional treatments

BACHELOR OF CLINICAL OPTOMETRY
II-B. Optometry Sem-III :SUMMER- 2022
SUBJECT : DISPENSING OPTICS - II

Day : Friday
Date : 8/7/2022

S-837-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 70

N. B. :

- 1) There are three sections as:
Section – A = Objective types questions = **20 Marks**
Section – B = Long questions = **20 Marks**
Section – C = Short questions = **30 Marks**
- 2) **Section – A** is given on **SEPARATE** sheet has to be answered on same sheet.
- 3) **Section – B** has Long questions and **ANY TWO** questions have to be answered on the **SEPARATE** answer sheet.
- 4) **Section – C** has Short questions and **ANY FIVE** questions have to be answered on the **SEPARATE** answer sheet.
- 5) Draw neat and labelled diagrams **WHEREVER** necessary.

SECTION – B

Q. 3 Answer **ANY TWO** of the following: **(20)**

- a) What are Photochromic lenses? How are Glass Photochromic lenses made? Explain the factors that influence the photochromic performance.
- b) Write in detail about various types of Bifocals.
- c) Explain in detail the trouble shooting of PALs with some common complaints, their possible causes and solutions.

SECTION – C

Q. 4 Answer **ANY FIVE** of the following: **(30)**

- a) What will be amount of Image jump, if the reading level is 8 mm below the distance optical center of the lens:
 - i) For a 22-mm round fused bifocal segment.
 - ii) For a 22-mm wide straight-top fused bifocal segment.
 - iii) For a 38-mm round Ultex A bifocal.
 - iv) For an Executive bifocal.Given the distance prescription +3.00 DS with a +2.00 DS add.
- b)
 - i) Draw a neat well-labelled diagram showing Brewster's angle
 - ii) Explain how polarizing lenses are made.
- c) Explain in brief about:
 - i) Position – of – wear PAL
 - ii) Personalized PAL
 - iii) Near Variable Focus Lenses
- d) What are the common causes of errors while measuring IPD using a PD ruler?
- e) Write a short note on plastic frame materials.
- f) Write a short note on various faults in ophthalmic lenses.