

FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI
SCHOOL OF HEALTH TECHNOLOGY
DEPARTMENT OF OPTOMETRY
HARMATTAN SEMESTER 2014/2015 EXAMINATION
OPT 507 – LOW VISION AND OCULAR PROSTHESIS - 2 UNITS
ANSWER 4 QUESTIONS, 1 FROM EACH SECTION AND ANY OTHER
TIME ALLOWED – 2 HOURS

Section A

- (a) Explain the concept of 25 cm reading distance. What will be the magnification and the expected high addition of the prescription of a Presbyopic low vision patient used at 12.5 cm working distance (show your working)

(b) A Presbyopic patient reads 4M print at 40 cm through a +2.50D reading addition. If the patient desires to read 1M letter, what will be the angular size of the print, the working distance and the reading addition that will enable the patient achieve his desires?

(c) What are the optical difficulties you will expect while trial framing lens power of +10.00D or higher?
(25 marks)
- (a) List and briefly explain 4 ways to make an object larger.

(b) When do you try magnification for a low vision patient?

(c) How do you solve the problem of glare for low vision patients and in what form(s) will this problem be solved?

(d) What do you understand by vergence amplification?
(25 marks)

Section B

- (a) Explain the influence of the following on the successful adaptation and benefit from Low vision aids (i) Motivation (ii) Professional Counselling (iii) Self- image (iv) Etiology (v) Stability of condition (2 marks each)

(b) Discuss the importance of the following in low vision examination (i) Visual field examination (ii) Colour vision test (iii) General observation (iv) Subjective testing (v) Keratometry (3 marks each)
- Discuss the following:

 - Retinoscopy as it applies to low vision examination (5 marks)
 - Pinholes and Stenopaic slits for low vision (5 marks)
 - 5 conditions an ocular prosthesis should fulfil (5 marks)
 - Care of ocular prosthesis (5 marks)
 - Moulded eye (5 marks)

Section C

- (a) Give at least 5 examples each of the causes of visual disorders in (i) Neonate or young person (ii) Working age person (iii) The Elderly (5 marks each)

(b) Explain what you understand by Low Vision (10 marks)
- Write short notes on the following as they affect low vision (a) Acute optic neuritis (b) Diabetes (c) Pathologic Myopia (d) Retinitis Pigmentosa (25 marks)