

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM  
(Deemed to be University)**

**B.OPTOMETRY DEGREE EXAMINATION – August 2019  
Third Year**

**LOW VISION AIDS**

Time: Three hours

Maximum: 80 marks

I Choose the best answer

(10 x 1 = 10)

1. In most of the fixed focus magnifiers, the emergent rays reaching the eye are
  - a) Parallel
  - b) Convergent
  - c) Divergent
  - d) Perpendicular
  
2. Light perception refers to
  - a) No light Perception
  - b) Can distinguish when and whether light is on or off, but not direction of source
  - c) Ability to discern the direction of light
  - d) None of the above
  
3. \_\_\_\_\_ rebate on telephone rentals in India is given for blind people
  - a) 0.25
  - b) 0.5
  - c) 0.75
  - d) 1
  
4. Patients with \_\_\_\_\_ field of view should be given orientation and Mobility training
  - a) 10 degree or more
  - b) 10 degree or less
  - c) Equal to 10 degree
  - d) None of the above
  
5. Following are the causes of overall blurred EXCEPT
  - a) Keratoconus
  - b) Microcornea
  - c) Macular Degeneration
  - d) Corneal degeneration
  
6. Just noticeable difference is calculated by
  - a) Snellen numerator / 30 for a testing distance of 3 m
  - b) Snellen denominator / 30 for a testing distance of 6 m
  - c) Snellen denominator x 30 for a testing distance of 6 m
  - d) Snellen denominator + 30 for a testing distance of 6 m
  
7. Following are the causes of central filed loss EXCEPT
  - a) Best's Disease
  - b) Stargardt's macular dystrophy
  - c) Macular Hole
  - d) Retinitis pigmentosa

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8. Software 'JAAWS' stands for
- Job And Work Speedily
  - Job Access With Speech
  - Job And Work With Speech
  - Job Accessibility With Skype
9. Government of India offers reduction in interest rates for self-employment loans up to the tune of \_\_\_\_\_ for visually disabled people
- 0.04
  - 0.01
  - 0.08
  - 0.1
10. A functionally blind has the following EXCEPT
- VF < 20 deg
  - No vision
  - No Projection of Light
  - No Light Perception

II State whether the following statements are **TRUE** or **FALSE** (10 x 1 = 10)

- Pocket magnifier: a single lens useful for spot reading, such as bills, medicine or price labels during shopping
- Typoscopes are optical devices used for letter writing.
- If an elderly comes with a complaint of difficulty in recognizing faces and on amsler it reveals a central vision distortion, the probable diagnosis is glaucoma.
- When testing visual acuity testing in a low vision patient, it is a rule to always check the VA for the better eye first.
- The reading accuracy and ability to recognize letters will not be impaired if the central scotoma is of diameter 20 degree.
- Subjective refraction is done in one dioptre steps in low vision patients.
- Telemicroscopes are best used at near.
- Prisms are helpful low vision aids in hemianopia.
- Peaked caps can help reduce glare.
- Binocular telescopes can be prescribed for outdoor use

III Fill in the blanks: (10 x 1 = 10)

- Rule: 1 mm Base In decentration for ever \_\_\_\_\_ of add.
- Optical low vision aids use magnifiers to enlarge the \_\_\_\_\_ image size.
- \_\_\_\_\_ is a common complaint in patients with albinism.
- Just noticeable difference is calculated by \_\_\_\_\_
- CCTV produces \_\_\_\_\_ magnification.
- \_\_\_\_\_ requires the development of a new preferred retinal locus (PRL) next to the scotoma which will be used as the "new" fovea.
- \_\_\_\_\_ Manififiers are ideal for reading letters, books, newspapers and magazines as they magnify a complete line at a time, they allow better reading flow.

(p.t.o.)

8. Zoom text magnifier has magnification range of \_\_\_\_\_
9. The early symptom of ARMD is \_\_\_\_\_ of vision.
10. Retinoscopy at a \_\_\_\_\_ than normal working distance to elicit a red reflex when media is not clear or pupils are small is called radical retinoscopy.

IV Write any **FIVE** answers of the following: (5 x 6 = 30)

1. Write on the various magnification techniques used with examples for low vision patients.
2. Write on biopic telescopes and contact lens combined system.
3. What are important history taking questions for a child with low vision.
4. What are the ways to increase contrast and decrease glare for low vision patients?
5. Write on various software available for low vision and blind patients.
6. Counselling of a low vision patient.
7. In glaucoma – list 3 symptoms of the patient, 2 signs and 2 management steps that you take .

V Write an essay on any **TWO** of the following: (2 x 10 = 20)

1. Write in detail on optical aids.
2. Age related macular degeneration: Explain on the disease, prognosis, low vision devices that can be prescribed, follow up, special diagnostic tests required for the management.
3. Highlight the importance of refraction in low vision patients, bracketing techniques, JCC usage and radical retinoscopy.

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