

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

**B.OPTOMETRY DEGREE EXAMINATION – September 2021  
Third Year**

**LOW VISION AIDS**

Time: Three hours

Maximum: 80 marks

I Choose the best answer

(10 x 1 = 10)

1. Following are the causes of central field loss EXCEPT
  - a) Bet's Disease
  - b) Stargard's macula dystrophy
  - c) Macular Hole
  - d) Retinitis pigmentosa
2. In most of the fixed focus magnifiers, the emergent rays reaching the eye are
  - a) Parallel
  - b) Convergent
  - c) Divergent
  - d) Perpendicular
- 3 Kubler Ross classification does not have this mental state
  - a) Awareness
  - b) Shock
  - c) Bargaining
  - d) Acceptance
4. Government of India offers reduction in interest rates for self –employment loans up to the tune of \_\_\_\_\_ for visually disabled people.
  - a) 0.04
  - b) 0.01
  - c) 0.08
  - d) 0.1
5. Retinoscopy at a closter than normal working distance to elicit a red reflex when media is not clear or pupils are small is called \_\_\_\_\_ retinoscopy
  - a) Dynami
  - b) Redical
  - c) Radial
  - d) MEM
6. Monocular telescope are used for the following EXCEPT
  - a) Used for spotting tasks
  - b) Mobility
  - c) Can be combined with a reading cap for near tasks
  - d) Can be used for tourism spotting
7. Brazelton formula is
  - a) Magnification = Best corrected distance visual acuity / needed near visual acuity x 2.5 = ADD
  - b) Magnification = (Best corrected distance visual acuity / needed near visual acuity) - 2.5 = ADD
  - c) Magnification = Best corrected distance visual acuity x needed near visual acuity x 2.5 = ADD
  - d) Magnification = Best corrected distance visual acuity + needed near visual acuity x 2.5 = ADD
8. Following are medical management and life skill devices EXCEPT
  - a) Pre-set insulin syringe
  - b) Notex for currency identification
  - c) Auditory liquid level indicators
  - d) Audio books
9. Central field loss is observed in
  - a) ARMD
  - b) Glaucoma
  - c) DR
  - d) Choroidal coloboma
10. A colour vision test apt for testing a low vision patient is
  - a) Ishihara
  - b) FM 100 hue
  - c) Titmus
  - d) Lang's

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

1. Total blindness is the inability to differentiate light from dark or to simply perceive even the presence of light.
2. A typoscope is used such that its tip strikes or touches various obstacles and provides information about it to the user.
3. Fresnel Sheet Magnifiers have good light gathering properties.
4. Voice – Over is a built in screen reader.
5. The Galilean telescope consists of a convex lens used for the objective and another convex lens used as the eyepiece.
6. A stand magnifier of longer focal length is preferred by myopes.
7. Using large print books is an example of approach magnification.
8. Just noticeable Difference [In Metric notation]: Denominator of visual acuity / 30.
9. Patients with ARMD complain of distortion and difficulty in face recognition.
10. JCC of lower powers should be used for low vision patients.

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

1. The first step in \_\_\_\_\_ training is to identify the point of clear vision or “Preferred Retinal Locus”
2. A unit magnification is equivalent to \_\_\_\_\_ of lens power.
3. \_\_\_\_\_ refers to programme implementation designed to maintain or enhance the child’s development in natural environments and as a member of a family.
4. \_\_\_\_\_ is an art of moving from one place to another independently, safely and gracefully.
5. Basic newspaper text is of size \_\_\_\_\_.
6. A sunglass or a beaked that would reduce the complaint of \_\_\_\_\_ among low vision patients.
7. WHO definition – “A person with low vision is one who has impairment of visual functioning in the better eye even after treatment, and/or standard refractive correction, and has a visual acuity of less than \_\_\_\_\_ to light perception or a visual field of less than 10 degrees from the point of fixation, but who uses, or is potentially able to use, vision for the planning and/or execution of a task.
8. At the school level – mode of education- \_\_\_\_\_ Education: Ordinary school with additional special educator who gives child special classes or attention when required. No changes are made in daily classroom and class teacher has no special training to handle special needs.
9. \_\_\_\_\_ magnifiers can be used to read expiry dates on bottles of medicine.
10. Principle of \_\_\_\_\_ move an object from non – seeing area.

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

1. Write on the various magnification approaches.
2. Write a detailed history you would take for a school going child regarding his school and academics.
3. What is early intervention?
4. Write on rehabilitation of visually handicapped.
5. Explain the optics of stand magnifiers and write its advantages and disadvantages.
6. A 15 year old child with Oculocutaneous albinism reports your clinic. What tests would you do for him and why? Name two LVD that would help him.
7. What are bioptic telescopes and contact lens combined system. Illustrate the optics (where necessary).

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

1. Write in detail on functional vision assessment of low vision patients with examples of devices used for each assessment.
2. Write on optical and non-optical aids and sensory substitution devices.
3. With an example of a condition – explain peripheral and central field loss and discuss its low vision management.

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