

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

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

**OPTOMETRIC INSTRUMENTS AND CLINICAL EXAMINATIONS
OF VISUAL SYSTEM**

Time: Three hours

Maximum: 80 marks

I Choose the best answer (10 x 1 = 10)

1. For a patient complaining distortion, the following test is mandatory
 - a) Ishihara
 - b) FACT
 - c) Hiding Heidi
 - d) Amsler Grid
2. Worth four dot test can be used to test
 - a) Color matching
 - b) Supression
 - c) Depression
 - d) Visual acuity
3. Corneal thickness can be measured using
 - a) Palcido's disc
 - b) Keartometer
 - c) Pachymeter
 - d) TBUT
4. The following are true about the first spike in A scan EXCEPT
 - a) It is the tallest
 - b) Represents where the probe interface meets the cornea
 - c) Represents where the probe interface meets the lens
 - d) Is produced by sound wave
5. '3' in 3/60 represents the
 - a) Working distance
 - b) Testing distance
 - c) Patients ability to see
 - d) The retinal area of illuminance
6. Corneal negative a – wave in ERG is light induced
 - a) Hyper polarization of photoreceptor cells
 - b) Hyper polarization of amacrine cells
 - c) Hyper polarization of bipolar cells
 - d) Hyper polarization of ganglion cells
7. All are true about balie – lovie designs EXCEPT
 - a) Constant ratio from one size to next
 - b) Same number of letters in each line
 - c) Spacing between letters is equal to the letter size between the penultimate line
 - d) Equal legibility at each level

8. Principle of scanning laser polarimetry is
- a) Diffraction and retardation
 - b) Birefringence and retardation
 - c) Reflection and polarization
 - d) Diffusion and retardation
9. CSM in visual acuity measurements, stands for
- a) Controlled steady maintained
 - b) Central steady maintained
 - c) Central srous mmacula
 - d) Central steady macular
10. MRD I in ptosis evaluation is the distance
- a) From the margin of the upper lid to the central corneal reflex
 - b) From the margin of the lower lid to the central corneal reflex
 - c) From the margin of the upper lid crease to the central corneal reflex
 - d) From the margin of the lower lid crease to the central corneal reflex

II. Fill in the blanks:

(10 x 1 = 10)

1. Each letter in logMAR represents _____ log units.
2. More than 50 seconds of recovery time in photostress test is an indication of defect in _____.
3. RAPD is detected with help of _____ test.
4. _____ helps to measure vertex distance.
5. _____ is a localized defect or depression in the visual field.
6. "R" in ROPLAS stands for _____.
7. A dilated pupil that is non- reactive to a light source, together with ptosis, suggests a _____ nerve palsy.
8. Optic disc _____ is a sign of papilledema, papillitis or ischemic optic neuropathy.
9. Bitot spots are seen in _____.
10. Applanation tonometer is based on _____ Law

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

1. Crescent shape disc is seen in hyperopes.
2. In HFA, 40 dB = 1 asb.
3. Park's 3 step test is used to test for Lateral Rectus palsy.
4. Near IPD is lesser than distance IPD.
5. Slit lamp uses glass slabs between the eyepiece and objective lens to re-invert the image.
6. B in B scan stands for Brightness.
7. Aqueous flares are best seen with conical beam.
8. A montage image of funds captures 7 fields.
9. Arden ratio is calculated in ERG.
10. Videokeratoscope uses corneal tear film as mirror.

IV Answer any **FIVE** of the following:

(5 x 6 = 30)

1. Write in short on
 - a. Brightness acuity meter
 - b. Pupilometer
2. Write on the reliability indices of a Humphrey visual field analyser.
3. Which parts of the retina does the following test? What is the illumination required to do these tests?
 - a. ERG
 - b. VEP
 - c. EOG
4. Synaptophore
5. Filters used on ophthalmoscopes and their uses.
6. Contents of a trial box and its uses.
7. FM 100 hue test – Procedure, principle and documentation.

V Write an essay on any **TWO** of the following:

(2 x 10 = 20)

1. Write in detail on examination of
 - a. Lids, conjunctiva
 - b. Cornea
 - c. Lens
 - d. Iris
2. Write on types of retinoscopes available, their special features and characteristics of reflexes.
3. Illustrate optics of a manual lensometer and its explain its working, Compare and contrast manual and automated lensometer.

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