BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Optometry-2021/B.Optometry-2022
Course Name – Visual Optics-I
Course Code - BOPTOC301
(Semester III)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) While doing retinoscopy (No WDL, Plane mirror effect) from 66 cm and you got neutrality, now you shifted backward. What type of movement you will get?

a) With b) Against
c) Neutral d) Can not predict

(ii) If the eye is 1 D hyperopic, retinoscopinc light coming from 100 cm will make the total eye power

a) +61 D b) +60D
c) +59 D d) +58 D

(iii) In Listing\'s reduced eye the principal point lies

a) 1.5 mm behind the anterior surface of cornea b) 2.5 mm behind the anterior surface of cornea
c) 1.5 mm infront of the anterior surface of cornea d) 2.5 mm infront of the anterior surface of cornea

(iv) Internal reflection of light is prevented through the

a) Iris b) Choroidal coat
c) Sclerotic coat d) Pupil

(v) Spasm of accommodation mimics

a) Myopia b) Hypermetropia
c) Presbyopia d) Amblyopia

(vi) Aniseikonia means

a) The difference in axial length in the two eyes b) The differences in the curvature of the cornea in the two eyes
c) The differences in the size of the pupil in the two eyes d) The differences in the size of the image formed by the two eyes

(vii) Regular astigmatism means

a) Two meridians are perpendicular b) The two meridians are parallel

c) Asymptomatic Astigmatism
d) Astigmatism after cataract surgery

(viii) Regarding refraction in children

a) myopia is more common than Hypermetropia
b) myopia tends to progress as the child grows older
c) increased accommodation is used by children to overcome uncorrected astigmatism
d) increased accommodation is used by children to overcome uncorrected astigmatism

(ix) Name the lens which can use as Magnifying glass?

a) Convex Lens
b) Concave Lens
c) Concave Mirror
d) Convex Mirror

(x) Identify the condition in which light produces image that focus infornt of the retina?

a) Presbyopia
b) Hyperopia
c) Hypertropia
d) Myopia

(xi) Show the farthest distance upto which the normal eye can see objects clearly is

a) 1 m
b) 1000 m
c) 10000 m
d) Infinity

(xii) Select the persistence of vision for the human eye is

a) 1/6th of a second
b) 1/10th of a second
c) 1/16th of a second
d) 1/18th of a second

(xiii) Label the colour is least scattered by dust, fog, smoke?

a) Yellow
b) Red
c) Blue
d) Violet

(xiv) In the average adult eye, write where the anterior nodal point N is located?

a) in the anterior chamber
b) near the posterior surface of the crystalline lens
c) near the anterior surface of the crystalline lens
d) All of these

(xv) Select the general refrective error of eye at birth

a) -2
b) -5
c) 3
d) 8

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Explain simple astigmatism and compound astigmatism. (3)
3. Write a short note on the barrel and pin cushion distortion. (3)
4. Explain the term Hyperacuity. (3)
5. Discuss the effect of Anisometropia on Binocular Vision of Human eye (3)
6. Explain optical treatment of Myopia. (3)

OR

Explain AAO guidelines for treatment of hypermetropia. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Describe prismatic aberration while we are giving spectacle correction to the aphakic patient. (5)
8. write about third order aberration (5)
9. Compare between Snellen's chart and LogMAR chart. (5)
10. Discuss how cornea maintains its transparency as refractive media. (5)
11. Describe the significance of the reduced eye and schematic eye. (5)
12. Explain various components of visual acuity (5)

OR

Explain the procedure of measurement of near visual acuity by 'N' notation chart (5)

****