Avinashilingam Institute for Home Science and Higher Education for Women
Coimbatore - 641 043
Continuous Internal Assessment II – April 2025
IV Semester

Class : II UG **Time : 2 Hours**
Branch : Optometry **Max. Marks : 60**

22BOPC20 Visual Optics – II

Course Outcomes:

CO1: To conceptualize various optical components of eye, types of refractive errors and its management.
CO2: To learn the concept of accommodation and convergence in detail.
CO3: To gain knowledge on objective refraction and its type..
CO4: To understand various methods used to achieve accurate subjective refraction
CO5: To learn the concept of ocular and spectacle refraction.

Part A **6 x 1 =6**

Choose the Correct Answer

1. Power of lens of focal length 1cm is CO5K1
   a. 1 D b. 10 D c. 100 D d. 0.01 D
2. Fastest acting cycloplegic drug is CO3K1
   a. Atropine b. Tropicamide
   c. Cyclopentolate d. Homatropine
3. Spherical equivalent of JCC is CO4K1
   a. +0.25 b. 0 c. +0.50 d. -0.25
4. Depth of field is inversely proportional to CO5K1
   a. Axial length b. Accommodation c. Pupil size d. Refractive index
5. Net retinoscopic value reveals +3.00DS at 50cm, what will be gross retinoscopic value CO3K1
   a. +1.50DS b. +1.00DS c. -1.50DS d. +2.00DS
6. The tonus allowance of atropine is CO3K1
   a. +0.50DS b. +0.75DS c. +1.00DS d. Nil

Part B **3 x 6 = 18**

Answer ALL questions

Each answer should not exceed 400 words or two pages

7.a. Write a note on near retinoscopy (or) CO3K2
7.b. Summarize the features of cycloplegic and mydriatic drugs CO5K2
8.a. Write a note on depth of field & focus (or) CO4K2
8.b. Explain about knapp's law CO3K2
9.a Write a note on SM & RSM, Axial & Refractive ametropia (or) CO4K2
9.b Calculate the AC/A ratio CO3K2
   i) If IPD is 60mm, near deviation is 9 ΔD exophoria & distance deviation is 3 ΔD exophoria
   ii) If IPD is 70mm, near deviation is 8 ΔD esophoria and distance deviation is 2 ΔD esophoria

Part C **3 x 12 = 36**

Answer ALL questions

Each answer should not exceed 800 words or two pages

10.a. Describe the steps involved in subjective refraction (or) CO4K3
10.b. Write a note on heterophoria & gradient methods to measure AC/A ratio with example CO3K3
11.a. Summarize the types of dynamic retinoscopy (or) CO3K2
11.b. Describe about Duochrome & Fogging test CO4K2
12.a. Explain the binocular balancing technique (or) CO5K3
12.b. Write a note on astigmatism verification procedures CO4K2

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18 Copies **Staff incharge: Ms. Mohana Sundari S.B**