

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Allied Health sciences Back Paper Examination (Odd and Even Semester) – July - August 2024 [Program : B. Optometry] [Semester: III] [Batch: 2022-23]				
Course Title: VISUAL OPTICS-I		Max Marks: 100		
Course Code: BOPT3002/L1UA302T		Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each		
1.	Describe the role of the cornea and the lens in the refraction of light within the eye.	K2	CO1	5
2.	Explain the various theories of colour vision.	K2	CO3	5
3.	Draw all the types of Chromatic and Mono-chromatic aberration and explain in brief about the corrections.	K3	CO1	5
SECTION-B (40 Marks)		10 Marks each		
4.	Define the term "refraction of light." Describe how the speed of light changes when it travels from a rarer medium to a denser medium.	K2	CO1	10
5.	How does the pupil regulate the amount of light entering the eye? Explain the mechanism involved.	K3	CO2	10
6.	Explain the concept of "refractive index" in the context of the eye's optical properties. How does the refractive index vary for different parts of the eye?	K3	CO3	10
7.	Appraise the prevalence of refractive errors globally.	K4	CO3	10
SECTION-C (45 Marks)		15 Marks each		
8.	Discuss the phenomenon of dispersion of light. How does a prism disperse white light into its component colors, and what causes this effect?	K4	CO1	15
9.	How does the aqueous humor contribute to maintaining the intraocular pressure and nourishment of the eye's anterior structures?	K3	CO2	15
10	Explain how the slit-lamp biomicroscope is used to examine the anterior segment of the eye. What information can be gathered from this examination?	K4	CO3	15