THE APOLLO UNIVERSITY
Saketa, Chittoor, AP
AHS- IV Semester End Examination, June, 2024
PAPER -I – OPTT 2504 – OPTOMETRIC OPTICS & DISPENSING OPTOMETRY

Time: 3 hours **Max. Marks: 60**

Section –A (10x2=20 marks)
Answer all Questions with Short Answers

1. Name two factors that significantly contribute to aberrations in ophthalmic lenses.
2. What do you mean by front vertex power and back vertex power?
3. Mention the methods of inspecting the quality of a lens.
4. Define abbe value. How is it related to chromatic aberration?
5. What are the advantages of PALs?
6. Define Prismatic effect. Mention its formula.
7. Define splay angle, frontal angle and crest angle.
8. What is the importance of marking pupillary distance?
9. List the applications of Welding glasses.
10. Name any 4 faults on the surface of the spectacle lenses

Section –B (5X8=40 marks)
Answer all Questions either A or B in 400 words each

11. A) Define aberrations in the context of ophthalmic lenses and explain the importance of minimizing aberrations for optimal vision correction.

OR

B) Write in detail about the application of prism in optometry.

12. A) Explain the faults in lens materials and the faults on the surface of the lens.

OR

B) How do you verify/inspect a quality of an ophthalmic lens? Brief on the steps of the same.

Cont…..

13. A) What are the definable sources of reflection that can cause annoyance to the spectacle lens wearer and explain the principle of Anti-reflection coating?

OR

B) Explain the principle of anti-reflection coating, advantages and disadvantages if the same.

14. A) Elaborate the different types of frames designs and different types of frame materials.

OR

B) Write note on i) PAL dispensing and adjustments ii) Steps to mark bifocal fitting height

15. A) Elaborate on any 4-spectacle repair process according to the parts.

OR

B) Explain the steps involved to verify the standard alignment of a spectacle.

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