

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE & ENGINEERING

DEPARTMENT OF OPTOMETRY

BACHELOR OF SCIENCE HONOURS DEGREE IN OPTOMETRY

OPTC 206: CLINICAL OPTOMETRY INSTRUMENTATION

DURATION: 3 HOURS

TOTAL MARKS: 100

CANDIDATE NUMBER:

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INSTRUCTIONS:

- This paper contains 2 (two) sections.
- Section (1) is 60 marks
- Section two (2) is 40 marks

SECTION (1): ANSWER ALL QUESTIONS (60 MARKS)

1. State three (3) factors that affects the stimulus intensity in visual field testing. 3 marks
2. State the principle of indentation tonometry. 4 marks
3. State the principle of applanation tonometry. 4 marks
4. State the purpose of gonioscopy. 3 marks
5. State three (3) techniques that can be used to alter the corneal curvature to allow viewing of the anterior chamber angle. 6 marks
6. State two (2) reasons the anterior chamber angle cannot be viewed without an aid or employing special technique. 4 marks
7. State three indirect contact lens used to view the anterior chamber. 3 marks
8. State the two (2) stimulus presentation in visual field testing. 2 marks
9. State the principle behind the operations of the slitlamp biomicroscope. 3 marks
10. State the main purpose of the slitlamp biomicroscope. 3 marks
11. State the tyndall phenomenon 3 marks

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| 12. Apart from tonometry, state the two other methods of measuring IOP. | 2 marks |
| 13. State the purpose and principle of red lens test | 4 marks |
| 14. State the purpose of keratometry | 4 marks |
| 15. State the purpose and principle of worth-4-dot test | 4 marks |
| 16. State the purpose and principle of Maddox rod test | 4 marks |
| 17. Mention the differences between static perimetry and kinetic perimetry. | 4 marks |

SECTION (2): ANSWER ALL QUESTIONS (40 marks)

1. Mention five (5) types of visual field instruments according to their use and level of sophistication 5 marks
2. Describe the principle of shadow test 5 marks
3. Describe the observation system in the slitlamp biomicroscope. 10 marks
4. Describe the principle of the direct ophthalmoscopy. 10 marks
5. Describe the principle of visual field testing. 10 marks

END OF PAPER