

BINDURA UNIVERSITY OF SCIENCE EDUCATION  
FACULTY OF SCIENCE AND ENGINEERING  
DEPARTMENT OF OPTOMETRY

JUN 2023

BACHELOR OF SCIENCE HONOURS DEGREE IN OPTOMETRY

OPT308 : CLINICAL MEDICINE IN OPTOMETRY

DURATION: 3 HOURS

TOTAL MARKS (100)

CANDIDATE NUMBER:

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**INSTRUCTIONS**

Write your registration number in the space provided above and submit both the answer booklet and the question paper at the end of the examination.

1. As cells grow and regenerate, what mechanism does the body use to get rid of the continuously dying cells? [8marks]  

1.a And what kind of cells can't be replaced once dead? [2marks]
2. Why do mitochondrial diseases cause a myopathy? [4marks]
3. Why do successive generations of patients with some genetic disorders present earlier and with progressively worse symptoms? [10marks]
4. Why are antibiotics not allowed in the treatment of rotaviruses? [4marks]
5. How long does it take after vaccination to become immunized against chickenpox and therefore safe to work in infectious areas? [4marks]
6. a. Can *Escherichia coli* 0157 be spread by foods other than meats? [2marks]  

b. Explain your answer [4marks]
7. What is the mechanism of iron absorption from iron polymaltose complex and carbonyl iron? [10marks]
8. What are the causes of urinary incontinence in the elderly? [8marks]
9. Explain why the left side of the heart is more prone to disease. [4marks]
10. What is cardiac asthma? [6marks]

11. What is the clinical importance of a diastolic pressure? [6marks]  
a. And what problems might arise if a patient has a too high/low diastolic blood pressure? [2marks]
12. What oral antidiabetics are safe in pregnancy? [4marks]
13. How does diabetes mellitus cause atherosclerosis? [8marks]
14. Why is diabetic ketoacidosis more common in type 1 diabetes? [6marks]
15. How can one differentiate between papilledema and a tilted disc on fundus examination? [4marks]
16. What is meant by copper and silver wiring of retinal vessels on ophthalmoscopy, what do they look like and which of them signifies atherosclerosis? [4marks]

END OF PAPER