



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – M.Optomerty-2025

Course Name – Epidemiology and Public Health

Course Code - MOP20108

(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Which Greek physician is known as the "Father of Medicine" and contributed to the early understanding of public health?

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|--------------|----------------|
| a) Galen | b) Hippocrates |
| c) Aristotle | d) Socrates |

(ii) Which public health intervention has been most successful in eradicating a disease worldwide?

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|----------------------|-------------------------|
| a) Polio Vaccination | b) Smallpox vaccination |
| c) Tb treatment | d) Malaria control |

(iii) Which global initiative focuses on eliminating avoidable blindness?

- | | |
|------------------------------------|----------------------------|
| a) VISION 2020: The Right to Sight | b) Universal Sight Program |
| c) World Optometry Project | d) Clear Vision Campaign |

(iv) Which of the following interventions helps control the spread of trachoma?

- | | |
|--------------------------|----------------------------------|
| a) Use of contact lenses | b) Ocular and facial cleanliness |
| c) Balanced sugar intake | d) Promoting liver health |

(v) How do environmental factors contribute to the development of cataracts?

- | | |
|---|--|
| a) Prolonged exposure to UV radiation can increase the risk of cataract development | b) Smoking can increase the risk of cataract development |
| c) Imbalanced metabolic conditions can increase the risk of cataract development | d) All of these |

(vi) Which vitamin deficiency is associated with an increased risk of blindness?

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|--------------|----------------|
| a) Vitamin A | b) Vitamin C |
| c) Vitamin D | d) Vitamin B12 |

(vii) Why is glaucoma often called the silent thief of sight?

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|--------------------------------------|--|
| a) It only affects peripheral vision | b) It has no symptoms until significant vision loss occurs |
| c) It is a genetic disorder | d) It is caused by high blood sugar |

- (viii) A healthcare provider is designing a prevention program for diabetic retinopathy. What intervention would be most effective?
- Annual eye screening and blood sugar control
 - Genetic counselling
 - Increased sun exposure
 - Avoiding contact lenses
- (ix) Which intervention would be most beneficial for reducing workplace-related eye injuries?
- Providing personal protective eyewear
 - Encouraging smoking cessation
 - Promoting vitamin A supplements
 - Increasing outdoor working hours
- (x) Which public health intervention would be most effective in reducing the global burden of blindness?
- Expanding access to affordable cataract surgery
 - Providing universal access to reading glasses
 - Increasing the availability of sunglasses
 - Banning high-sugar diets
- (xi) An unaware diabetic patient shows signs of mild NPDR in a screening camp. What would be the course of action?
- Prescribe medication to control blood sugar levels
 - Refer for Anti VEGF injections
 - Refer to a diabetologist
 - Provide glasses (if any) and avoid any referral
- (xii) What is the primary difference between prevalence and incidence?
- Prevalence measures new cases; incidence measures total cases
 - Prevalence measures total cases; incidence measures new cases
 - Prevalence is used only for infectious diseases
 - Incidence applies only to chronic diseases
- (xiii) A school is introducing an inclusive education program for visually impaired students. Which strategy would be most beneficial?
- Providing Braille books and assistive technology
 - Making students memorize lessons
 - Making students memorize lessons
 - Open book examinations
- (xiv) What is the target prevalence of blindness in India set by the NPCB?
- 0.3%
 - 0.5%
 - 0.7%
 - 1.0%
- (xv) Which of the following is a benefit of vision screening in schools?
- Improved academic performance
 - Reduced risk of amblyopia
 - Early detection of eye diseases
 - All of these

Group-B

(Short Answer Type Questions)

3 x 5=15

- How does VISION 2020 contribute to global eye care? (3)
- What are the main barriers to healthcare service delivery? (3)
- How do lifestyle choices affect health? Explain with a systemic disease in consideration with ocular manifestation. (3)
- Discuss three mortality indicators. (3)
- Why is early detection crucial in blindness prevention? (3)

OR

Explain how childhood blindness impacts the quality of life. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- List the factors for higher prevalence of blindness in India. (5)

8. Explain the advantages of Teleophthalmology. (5)
9. Examine how cultural resistance can affect childhood blindness in rural India. (5)
10. Explain the impact of rising childhood blindness as the burden of blindness on the nation. (5)
11. Contrast between previous and present health service delivery system. (5)
12. A 70-year-old patient has bilateral cataracts, causing severe vision impairment (visual acuity $< 3/60$). The patient undergoes cataract surgery, restoring normal vision (20/20). His quality of life score was 0.3 and later improved to 0.9, pre and post cataract surgery. Compare the DALY and QALY (approximately) of the patients. (5)

OR

Contrast the key differences between DALY and QALY. (5)

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