ASS. PROF. ZHICHAO WU

Wave 2026 D2-S3 MCQS

MCQS – Advance Access Only for WAVE. Please submit answers online before 11.59pm AWST 23rd March
OR
if you want a 7 Day Extension to complete ALL MCQS – opt in online for the extra time

The following 5 MCQS are from the presentation on Day 2 - Session 3 @ WAVE 2026.

Artificial Intelligence in Eye Care – What Should You Be Aware Of?

Q.1) How have deep learning models for detecting referable diabetic retinopathy (DR) been typically developed?

a) By using collected information about clinical risk factors (e.g., HbA1c, duration of diabetes) to predict humans have labelled as referable DR or not

b) By automatically processing images to derive features deemed important by experts to predict what humans have labelled as referable DR or not.

c) By automatically extracting features from the images to predict what humans have labelled as referable DR or not.

d) By automatically learning from vast amounts of images without human input to determine what referable DR should be.

Q.2) Which of the following best describes what "oculomics" is?

a) A field that uses ocular imaging to detect eye diseases.

b) A field that uses ocular imaging to provide insights into systemic health.

c) A field that uses ocular imaging to predict a person's demographic characteristics.

d) A field that uses ocular imaging to predict a person's genetic profile.

Q.3) What is Optometry Australia's position on who can be responsible for clinical decisions in eye care?

a) Health professionals

b) Autonomous AI models

c) Non-clinical staff, guided by AI tools

d) Any of the above

Q.4) How do current AI tools approved by the Therapeutic Goods Administration (TGA) for detecting eye diseases most typically work?

a) By asking you to upload your patient history and examination notes, to estimate the likelihood of different eye diseases being present.

b) By asking you to describe what features you see on retinal images, to derive a clinical diagnosis and referral suggestion.

c) By analysing retinal images, to determine the presence of eye diseases based on specific definitions used during its training process (e.g., referable AMD).

d) By segmenting disease features or highlighting areas-of-interest on the image, to assist you with clinical decision-making.

Q.5) What are some key questions to ask when seeking to understand the performance of an AI tool for detecting eye diseases?

a) Was it externally evaluated?
b) How does it compare to clinicians or human experts?
c) Has it been shown to work effectively for the population that I wish to use it for?
d) All the above.