Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

any two with an interest: drivers: safety at work; passengers: privacy and fair treatment; council: safety, fare income, public support; supplier: selling the system; civil-liberties group: protecting rights

2.2

$20\,000 \times 0.01 =$ **200** false alerts per day; "accuracy" does not say how many false alerts or for which groups errors are higher; it comes from the supplier, which has an interest in selling the system

2.3

any two, explained: delete footage after a short time unless an incident is reported; no sharing with police without a warrant; an independent audit of error rates for different groups; clear signs and public consultation before use

2.4

AI cameras: cover all buses, all day; lower running cost; risks: privacy, false alerts, bias; more staff: a human presence can prevent attacks and help passengers; cost: high and continuing; limited to some routes; comparison on effectiveness and fairness; a judgement, e.g. staff on the riskiest routes plus simple cameras without AI

3.1

Mark with the markbands: [13-15] clearly focused on the question, accurate and relevant knowledge and real-world examples used as evidence, concepts applied, well-developed critical analysis, different perspectives evaluated, a reasoned conclusion; [10-12] focused, mostly accurate knowledge, analysis with some evaluation; [7-9] some focus, relevant knowledge, mostly narrative or description with limited analysis; [4-6] little focus, limited knowledge, mostly narrative; [1-3] little understanding of the question. Points that may be included: the challenge stated clearly: safety and fare loss against privacy and fairness; stakeholders and their interests; analysis of the accuracy claim and false alerts (200 a day in the worked case); risks: bias, data sharing, lack of consultation; benefits: driver safety, evidence for incidents; alternatives evaluated: staff, simple cameras, data rules; a real-world example, e.g. a city that banned or limited facial recognition (San Francisco, 2019), or the EU AI Act's limits on real-time biometric identification in public spaces; criteria used: effectiveness, fairness, feasibility; a clear, justified recommendation; conditions or safeguards attached to the recommendation

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