Solutions

Marking: **K** knowledge, **App** application to the case, **An** analysis (a developed chain of reasoning), **Ev** evaluation (a justified judgement); calculations earn **M1** for the method and **A1** for the answer.

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

2.1

- $-25 \div 10 = \mathbf{-2.5}$
- **elastic**

2.2

- $4 \times 100 = \$400$; $5 \times 90 = \$450$
- revenue **rises** by **\$50**

2.3

- there are few close **substitutes** for petrol in a petrol car (K)
- it is a **necessity** for driving to work (App)
- so drivers keep buying almost the same amount when the price rises (An)

3.1

A

3.2

(a)

- price +25 %; quantity −10 %
- PED $= -10 \div 25 = \mathbf{-0.4}$

(b)

- revenue before $= 2.00 \times 10\,000 = \$20\,000$ (K)
- after $= 2.50 \times 9000 = \$22\,500$, so it **rises** by \$2500 (App)
- demand is **inelastic**: quantity falls by a smaller % than price rises (An)
- so the gain on each fare outweighs the passengers lost (An)

(c) a developed chain, for example:

- in the short run many passengers have no **alternative** for getting to work (K)
- over time they can buy a bike, a car or an e-scooter, or share lifts (App)
- some may move house or change job to be nearer work (App)
- more **substitutes** become available, so more passengers switch when the fare is high (An)
- so the quantity demanded responds more and PED rises in size (An)

(d) for: (An)

- demand is inelastic (−0.4), so a further rise would raise revenue again
- extra revenue could pay for new buses or more routes

against: (An)

- demand becomes more elastic over time, so revenue gains may disappear
- fewer passengers means more cars, congestion and pollution; poorer workers lose out
- a city government may limit fares, and passengers may complain

judgement: (Ev) for example, a small rise is reasonable in the short run, but a large one risks losing passengers for good once they buy alternatives; the company should raise fares only alongside better service.

Level 3 (6–8): both sides analysed and a justified judgement. Level 2 (3–5): one side analysed or both explained. Level 1 (1–2): simple points.