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

any two: **noise**; **air pollution**; more **traffic** and congestion; loss of farmland or habitats; houses lose value

2.2

- 5000×12
- $= \$\mathbf{60\,000}$

2.3

advantage (2):

- an **ethical image** attracts customers (1), who may pay a higher price and stay loyal (1)

disadvantage (2):

- fair-trade cotton costs **more** (1), so either prices rise and sales may fall, or profit falls (1)

3.1

B

3.2

B

3.3

(a)

- development that meets the needs of people today **without harming** the ability of future generations to meet theirs

(b)

- $400\,000 \div 80\,000$
- $= \mathbf{5}$ years

(c) two external costs, each outlined (K + App each):

- **dead fish**: lost income for fishermen and anglers downstream
- **polluted water**: a health risk and a cost to clean for water users
- loss of wildlife and **tourism** along the river
- traffic and fumes from the factory

(d) two effects, each explained (K, App, An each):

- **lost sales**: if shops stop stocking ChemCo paint, revenue and profit fall
- **bad publicity**: customers switch to rival brands; the brand is harder to rebuild than to protect
- staff may be harder to recruit; the government may tighten controls
- ChemCo may have to spend on PR or change its process

(e) for: (An)

- ends $80,000 fines a year, so it pays for itself in 5 years; protects sales to shops; ends the campaign; meets future, stricter laws

against: (An)

- $400,000 is two thirds of last year's profit; may need a loan; less money for other investment

decision: (Ev) for example, install the filter, because the fines alone repay it in 5 years, and the boycott could cost far more in lost sales than the filter costs; ChemCo should tell customers about the change.

Level 3 (5–6): a justified decision for this business, weighing both sides. Level 2 (3–4): points explained and applied. Level 1 (1–2): points identified.