Solutions

Marking: **K** = knowledge, **App** = using the data or case, **An** = analysis (explaining each step: cause, then effect), **Ev** = evaluation (a judgement with a reason). In calculations, **M1** is for the method and **A1** for the answer. Longer answers are marked in levels: the top level needs clear analysis **and** a judgement with a reason.

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

2.1

- **300** units
- AC is lowest there, at \$5

2.2

- not efficient: $P < MC$
- output should **fall**

3.1

- static efficiency is about the best use of resources at one point in time (productive and allocative) (K)
- dynamic efficiency is about improvement over time through new products and methods (K)
- it depends on firms using profit for research and investment (An)

3.2

- an allocation where no one can be made better off without making someone else worse off (K)
- a monopoly restricts output and sets $P > MC$ (An)
- more output would make consumers better off by more than it costs, so the allocation is not Pareto optimal (An)

3.3

(a) $(4 - 2)/4 \times 100$; **50**%

(b) $P > MC$, so too little water is supplied compared with what consumers value (An); without competition the firm has little pressure to cut costs (An); it may not produce at the lowest AC, and waste can rise (An); the result is a deadweight loss (An)

(c) points to include:

- a price cap closer to MC raises output and allocative efficiency (An)
- a cap that falls each year (RPI − X) gives the firm a reason to cut costs (An)
- but the regulator may not know the true costs; the cap may be set too high or too low (An)
- low profits may cut investment, harming dynamic efficiency (An)
- judgement: regulation helps where competition is impossible, if the regulator has good information (Ev)

Levels: **top** (6–8) clear analysis, each step explained, and a judgement with a reason; **middle** (3–5) some analysis, judgement weak or missing; **bottom** (1–2) relevant points, little explanation.