## Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

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

**2.1**

- a permit allowing a firm to emit a set amount of pollution, which can be bought from or sold to other firms (2 for a clear definition; 1 for a partial idea)

**2.2**

- any one of: protect competition; block harmful mergers; ban price-fixing; stop the abuse of monopoly power (1)

**2.3**

- when government action leads to a worse allocation of resources than the market outcome it replaced (2 for a clear definition; 1 for a partial idea)

**3.1 B**

- Permits cap total pollution and let firms trade the right to pollute

**3.2**

- *[6]* AO1 1 + AO3 up to 5 — the government caps total pollution and issues permits
- firms that can cut pollution cheaply do so and sell their spare permits
- firms for whom cutting is expensive buy permits instead
- the cap is met, but the cuts happen where they cost least
- pollution falls at the lowest total cost

**3.3**

- *[12]* AO1/AO2/AO3 up to 8 + AO4 up to 4. **For:** taxes, subsidies, regulation and permits can correct externalities, provide public goods and curb monopoly power. **Against:** government failure — poor information leads to the wrong tax/subsidy, policies are costly and slow, and price controls can create black markets. Judgement: well-designed intervention usually improves allocation, but it can fail — so the gain depends on the quality of information and design