Solutions

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

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

2.1

natural capital: the stock of the resource, e.g. all the trees in the forest; natural income: the yield or flow from it, e.g. the new wood that grows each year

2.2

a resource only has value when people need it and have the technology to use it; e.g. lithium was of little use until rechargeable batteries; demand for electric cars raised its value; value can also fall, e.g. coal as countries move to renewables

3.1

(a) $0.04 \times 50\,000 = \mathbf{2000}$ m^3 per year

(b) harvest is 1500 m^3 more than growth each year, so the stock (natural capital) falls; a smaller stock grows less each year, so the sustainable yield falls too, until the forest may be lost

3.2

(a) any two: protect coasts from storms and erosion; nursery for fish; store carbon; timber and fuel; filter water

(b) strength: a money value lets services be compared with the profit from clearing, e.g. for shrimp farms, so they are counted in decisions; limitation: many values (cultural, spiritual, existence) are hard to price, and estimates vary widely; judgement: useful as one tool alongside other values

3.3

award up to [6]: linear economy: take, make, throw away, using up natural capital and making waste; circular: products designed to last, be repaired, reused and recycled; waste becomes a resource; benefits: less extraction of non-renewable resources and less waste and pollution; new jobs in repair and recycling; greater resource security; limits: some materials degrade when recycled; needs redesign, investment and consumer change; rebound effects; conclusion: an important step that works best with laws, standards and lower consumption

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