Solutions

Business 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

- the time it takes for a project's cash inflows to repay its initial cost (2 for a clear definition; 1 for a partial idea)

2.2

- $\frac{16{,}000}{80{,}000} \times 100\% = 20\%$ (2; award 1 for a correct method with the wrong figure)

2.3

- that money received in the future is worth less than the same money today (2 for a clear idea; 1 for a partial idea)

3.1

- *[3]* **AO1** 1 — name a benefit (simple to calculate; focuses on risk; shows how soon cash returns). **AO2** up to 2 — develop it, e.g. a short payback returns the cash quickly
- less risk that conditions change
- useful for a firm short of cash (2 developed / 1 limited)

3.2

(a)

- after 2 years \$100,000 is repaid; \$20,000 of the third year's \$50,000 remains
- $2 + \frac{20{,}000}{50{,}000} = 2.4$ years (3; award marks for correct cumulative working)

(b)

- *[3]* AO1/AO2 1 + AO3 up to 2 — payback ignores all cash flows **after** the payback point
- a project with a slightly longer payback but much higher later returns could be wrongly rejected
- it ignores total profitability

3.3

- *[12]* **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **Payback:** simple, risk-focused — but ignores later cash and total profit. **ARR:** shows profitability and is easy to compare — but ignores the timing of cash. **NPV:** most complete (accounts for the time value of money) — but complex and needs a chosen discount rate. Judgement: no single method is best; a firm short of cash may weight payback, while a long-term project suits NPV — the best approach uses more than one method and depends on the firm's priorities