IGCSE Biology: **w25 21**

Question 36 (Answer: **D**)

- The lag phase is the slow start, the exponential phase the steep rise.
- The stationary phase is the plateau, where births balance deaths.
- The death phase is the final fall, where deaths outnumber births.

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Question 37 (Answer: **A**)

- A full growth curve has four phases: lag, exponential, stationary and death.
- Read which of them the graph actually reaches.
- A curve still rising or just levelling off has not yet shown the final decline.

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Question 37 (Answer: **D**)

- The curve is rising ever more steeply, which is exponential growth.
- There is no plateau, so the population has not yet reached a stationary phase.
- That means no limiting factor has yet halted the increase.

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Question 37 (Answer: **A**)

- The lag phase comes first, while the few individuals are becoming established.
- The population is small and growing very slowly there.
- It is the flat section at the very beginning, before the steep exponential rise.

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Question 38 (Answer: **D**)

- The graph levels off, so births and deaths have come into balance.
- That happens when a resource runs short or waste builds up.
- So look for the event that limits the population, not one that would let it keep growing.

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Question 38 (Answer: **D**)

- The population falls when deaths outnumber births.
- That is the phase where the curve turns downwards after the plateau.
- The lag, exponential and stationary phases all have births at least matching deaths.

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Question 37 (Answer: **B**)

- An ecosystem is the community of organisms *together with* their non-living surroundings.
- The corals, sponges and sharks are the community.
- Temperature and salt concentration are the physical factors, so the two together make an ecosystem.

Question 38 (Answer: **B**)

- A population grows when birth rate exceeds death rate.
- More available food supports more individuals and more successful breeding.
- Disease, pollution and more predators would all push the population down.