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Answers

Wild bees in decline

Answers to practice exam questions on pp. 28–31

Martin Rowland

- 1 **a** Reduction in / lower species diversity.
 b Kill all / a wide(r) range of species.
 So helpful / desirable / beneficial species are killed.
- 2 Domestic bee populations are (much) larger than wild populations / contain up to 60,000 individuals.
 OR
 Wild bee populations are significantly smaller than domestic bee populations.
 (Random) risk of one individual becoming infected increases as population number increases [accept converse].
 Individual-to-individual transmission is higher if population density is higher [accept converse].

3D printing human organ models to study back pain

Answers to practice exam questions on pp. 36–40

Martin Rowland

- 1 They all carry the same DNA / have the same genome.
 (Some) different genes are transcribed (in the two types of cell).
 Leading to different proteins being translated.
- 2 Since it is polar, an ester molecule cannot pass between the phospholipid bilayer.
 (An ester molecule) is able to diffuse through channel proteins in the surface membrane.
 OR
 (An ester molecule) is actively transported through a carrier protein in the surface membrane.