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# 2009

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- 17 Which of the four statements below about natural selection are correct?
- 1 Competition occurs between individuals of the same species.
  - 2 Competition occurs between individuals of different species.
  - 3 Selection can lead to evolution.
  - 4 Selection can lead to extinction.
- A 1 and 3 only
- B 2 and 4 only
- C 1, 2 and 4 only
- D 1, 3 and 4 only
- E 2, 3 and 4 only
- F All of the above



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# 2010

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9 Which one of the following correctly completes the statement:

During the process of evolution, natural selection will favour individuals with...

- A an advantageous gene pool.
- B an advantageous allele.
- C a high reproductive capacity.
- D a wide geographic distribution.
- E a narrow geographic distribution.



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# 2011

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9 Here are five statements about natural selection:

- 1 Individuals within a species show variation.
- 2 Individuals within a species compete with each other for, among other things, resources.
- 3 Individuals with advantageous adaptations are more likely to survive to adulthood.
- 4 Only individuals with advantageous adaptations will be able to breed.
- 5 Alleles for advantageous adaptations are more likely to be inherited.

Which of the above statements are correct?

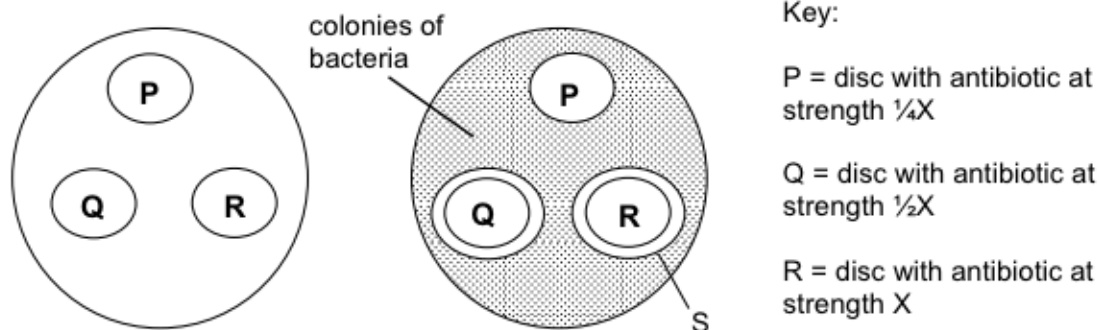
- A None
- B 1, 2, 3 & 4 only
- C 1, 2, 3 & 5 only
- D 1, 3, 4 & 5 only
- E 2, 3, 4 & 5 only
- F All



2012

- 13 The left diagram shows a plate containing a jelly with one species of bacterium evenly spread through it. Placed on the jelly are three discs called P, Q and R. They have been treated as in the key.

The right diagram shows the plate 48 hours later.



Which of the following is/are possible explanations for the result?

- 1 Antibiotic at strengths X and  $\frac{1}{2}X$  are equally as effective.
  - 2 Bacterial resistance to this antibiotic occurs at all three strengths.
  - 3 S may represent the maximum distance the antibiotic has diffused out of the disc.
- A 1 only
- B 2 only
- C 3 only
- D 1 and 2 only
- E 1 and 3 only
- F 2 and 3 only
- G 1, 2 and 3
- H none of these