

Evolution

Q1 Which one of the following is not a vestigial organ in human beings?
 (A) Nictitating membrane
 (B) Tail vertebrae
 (C) Vermiform appendix
 (D) Ear pinna

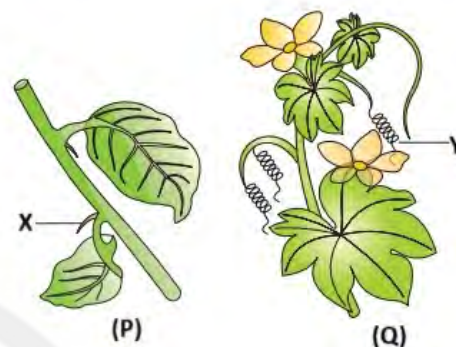
Q2 Identify the incorrect option with respect to analogous organs and mark the correct option.

- (A) The eye of the octopus and of mammals
- (B) The flippers of Penguins and Dolphins.
- (C) Sweet potato (root modification) and potato (stem modification).
- (D) Forelimb of man, cheetah, bat and whale.

Q3 Which one correctly describes homologous structures?

- (A) Organs with anatomical similarities but performing different functions.
- (B) Organs with anatomical dissimilarities but performing the same function.
- (C) Organs that have no function now but had important functions in ancestors.
- (D) Organs appearing only in the embryonic stage and disappearing later in the adult.

Q4 Identify X and Y and the relation between P and Q and mark the correct answer.



- (A) X represents thorn of Bougainvillea and Y represents tendrils of cucurbita and represents analogy.
- (B) X represents tendril of Bougainvillea and Y represents thorn of cucurbita and represents analogy.
- (C) X represents tendril of Bougainvillea and Y represents thorn of cucurbita and represents homology.
- (D) X represents thorn of Bougainvillea and Y represents tendril of cucurbita and represents homology.

Q5 Which evolutionary process is observed when species that share a common ancestor develop different traits over time?

- (A) Convergent evolution
- (B) Divergent evolution
- (C) Parallel evolution
- (D) None of these



Q6 Which of the following best describes analogous organs?

- (A) Organs with different evolutionary origins but similar functions
- (B) Organs with a common origin and similar functions
- (C) Organs that differ in both origin and function
- (D) Organs with a common origin but different functions

Q7 Phenomenon of 'industrial melanism' demonstrates

- (A) Geographical isolation
- (B) Reproductive isolation
- (C) Natural selection
- (D) Induced mutation

Q8 Analogous organs arise due to

- (A) Divergent evolution
- (B) Artificial selection
- (C) Genetic drift
- (D) Convergent evolution

Q9 Assertion: Fossils found in different-aged sedimentary rocks provide evidence for the evolution of life over geological time.

Reason: Certain life forms are restricted to specific geological time periods, indicating that new organisms appeared at different times in Earth's history.

- (A) Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.
- (B) Both Assertion and Reason are true, and Reason is not the correct explanation of Assertion.
- (C) Assertion is false, but Reason is true.
- (D) Assertion is true, but Reason is false.

Q10 The **first form of life** arose slowly through evolutionary forces from:

- (A) Pre-existing life forms
- (B) Non-living organic molecules
- (C) Fully developed cells
- (D) Divine creation



Answer Key

Q1 D
Q2 D
Q3 A
Q4 D
Q5 B

Q6 A
Q7 C
Q8 D
Q9 A
Q10 B



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Hints & Solutions

Note: scan the QR code to watch video solution

Q1 Text Solution:

Ear pinna

Video Solution:



Q2 Text Solution:

Forelimb of man, cheetah, bat and whale.

Video Solution:



Q3 Text Solution:

Organs with anatomical similarities but performing different functions.

Video Solution:



Q4 Text Solution:

X represents thorn of Bougainvillea and Y represents tendril of cucurbita and represents homology.

Video Solution:



Q5 Text Solution:

Divergent evolution

Video Solution:



Q6 Text Solution:

Organs with different evolutionary origins but similar functions

Video Solution:



Q7 Text Solution:

Natural selection

Video Solution:



Q8 Text Solution:

Convergent evolution

Video Solution:



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Q9 Text Solution:

Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.

Video Solution:**Q10 Text Solution:**

Non-living organic molecules

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