

Heredity and Evolution

THEORY QUESTIONS

2 Marks:

1. What are fossils? What do they tell about the process of evolution? [CBSE 2008]
2. Give one example each of characters that are inherited and the ones that are acquired in humans. Mention the difference between the inherited and the acquired characters. [CBSE 2010]

3 Marks:

1. Explain the following: [CBSE 2015]
A) Speciation
B) Natural Selection
2. Explain with an example for each, how the following provide evidences in favour of evolution in organisms:
(a) Homologous organs
(b) Analogous organs
(c) Fossils [CBSE 2015]
3. How do Mendel's experiment show that traits are inherited independently? [CBSE 2016]
4. "Two areas of study namely 'evolution' and 'classification' are interlinked". Justify this statement. [CBSE 2016]
5. How did Mendel explain that it is possible that a trait is inherited but not expressed in an organism? [CBSE 2017]
6. "Evolution and classification of organisms are interlinked." Give reasons to justify this statement. [CBSE 2017]

5 Marks:

1. How do Mendel's experiments show that the [CBSE 2015]
A) traits may be dominant or recessive,
B) traits are inherited independently
2. Define evolution. How does it occur? Describe how fossils provide us evidences in support of evolution. [CBSE 2016]
3. With the help of one example for each, distinguish between the acquired traits and the inherited traits. Why are the traits/experiences acquired during the entire lifetime of an individual not inherited in the next generation? Explain the reason of this fact with an example. [CBSE 2017]

PRACTICAL

1 Marks:

1. Given below is the list of vegetables available in the market. Select from these the two vegetables having homologous structures: [CBSE 2015]
Potato, sweet potato, ginger, radish, tomato, carrot, okra (Lady's finger)
A) Potato and sweet potato
B) Radish and carrot
C) Okra and sweet potato
D) Potato and tomato
 2. If you are asked to select a group of two vegetables, out of the following, having homologous structures which one would you select? [CBSE 2016]
A) Carrot and radish
B) Potato and sweet potato
C) Potato and tomato
D) Lady finger and potato
 3. The following vegetables are kept in a basket: [CBSE 2017]
Potato, Tomato, Radish, Brinjal, Carrot, Bottle-gourd
Which two of these vegetables correctly represent the homologous structures?
A) Carrot and Tomato
B) Potato and Brinjal
C) Radish and Carrot
D) Radish and Bottle-gourd
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