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Date: 08/11/2022

Subject: ZOOLOGY

Topic : Evolution L 4

Class: Standard XII

1. Which of the following is/are incorrect with respect to the basic concepts of Lamarckism?

- 1. Internal vital forces
- 2. Natural selection
- 3. Effect of environment and new needs
- 4. Use and disuse of organs
- 5. Struggle for existence

A. 1 and 4 only

B. 2 and 5 only

C. 3, 4 and 5

D. 1, 2 and 3

2. Match the options of Column I with

Column II.

Column I	Column II
P. Jean Baptiste	i. Theory of evolution by natural selection
Q. Father Suarez	ii. Inheritance of acquired characters
R. Charles Darwin	iii. Theory of special creation

A. P - i , Q - iii , R - ii

B. P - ii, Q - iii , R - i

C. P - iii, Q - i, R - ii

D. P - ii , Q - i , R - iii

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3. Which of the following examples do not support the Lamarckian concept of inheritance of acquired characters?
 - A. Eyes are reduced in moles
 - B. Melanization in peppered moths
 - C. Absence of limbs in snakes
 - D. Presence of webbed toes in aquatic birds
4. Which of the following statement gives the best concluding explanation of natural selection?
 - A. Use and disuse of organs
 - B. The struggle for existence
 - C. Reproductive success
 - D. Both b and c
5. Read the following two statements related to Lamarckism and find out the correct option.

Statement 1: Lamarck believes in use and disuse of organs.

Statement 2: Characters present in the offspring are independent of those in their parents.

- A. Statement 1 is true and statement 2 is false
- B. Statement 1 is false and statement 2 is true
- C. Both the statements are false
- D. Both the statements are true

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6. Darwin wrote a book named, "On the Origin of Species". It deals with

- A.** use and disuse of organs
- B.** biogenesis
- C.** germplasm theory
- D.** survival of the fittest and natural selection

7. _____ and _____ were the great critics of Lamarckism.

- A.** Cuvier and Weismann
- B.** Spencer and Cuvier
- C.** Cope and Weismann
- D.** Spencer and Cope

8. Read the following four statements (A - D) related to the comparison of Lamarckism with Darwinism. Select the correct option from below.

- A. Lamarck said that all acquired characters are inherited to the next generation.
- B. Darwin said that only useful variations are transferred to the next generation.
- C. Darwinism believed that the organs which are used have a tendency to grow more.
- D. Lamarckism believed in the survival of the fittest.

- A.** A and B are correct
- B.** D and C are correct
- C.** B and C are correct
- D.** B and D are correct

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9. Which of the following facts developed suspicion in Lamarckism?
 - A. Giraffes have long neck to eat leaves of the tall tree
 - B. Human females are not born with bored ear pinna although they have been bored for thousands of years
 - C. Deer become good runners by the development of strong limbs and streamlined body
 - D. Water birds developed their webbed feet by constant stretching of the skin of their feet

10. In the case of peppered moth, the black coloured form (*Biston carbonaria*) became dominant over the light coloured form (*Biston betularia*) in England after the industrial revolution. This was the result of
 - A. deposition of soot on the moths from the atmosphere
 - B. natural selection whereby the darker forms were selected
 - C. appearance of the black coloured individuals due to poor sunlight
 - D. protective mimicry