

## MISSION MBBS

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