

(6 Pages)

Reg. No. :

Code No. : 10627 E Sub. Code : SMZO 61

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2022

Sixth Semester

Zoology — Core

EVOLUTION

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

1. Similarity of structures connected with similarity of function is termed as
 - (a) Homology (b) Morphology
 - (c) Analogy (d) Palaentology
2. Which one of the following is called as chemical messengers?
 - (a) Enzymes (b) Chromosomes
 - (c) Phosphagens (d) Hormones

3. The Galapagos islands are associated with the visit of
 - (a) HMS Arjuna (b) INS Rathna
 - (c) HMS India (d) HMS Beagle
4. Natural selection theory was proposed by
 - (a) Charles Darwin (b) August Weismann
 - (c) Lamarck (d) Griffith
5. The differences between closely related animals are called
 - (a) Mutations (b) Variations
 - (c) Recombinations (d) Crossing over
6. When two populations occupying side by side evolve into two separate species the speciation is called?
 - (a) True speciation
 - (b) Allopatric speciation
 - (c) Sympatric speciation
 - (d) Gradual speciation

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7. The organism which exhibit mimicry is called
(a) Mimic (b) Model
(c) Colouration (d) Coevolution
8. Volant forms of animals are characterized by
(a) Burrowing (b) Flying
(c) Fast running (d) All of the above
9. Which one of the following is called as dawn horse?
(a) Hyracotherium (b) Epihippus
(c) Meshippus (d) Equus
10. The modern man belonged to the species
(a) Homo erectus
(b) Homo neanderthalensis
(c) Homo sapiens
(d) Homo heidelbergensis

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write a critical account on fossil connecting links.
Or
(b) Write a short note on geological time scale.
12. (a) What are the salient features of mutation theory?
Or
(b) Enlist the types of natural selection.
13. (a) What is variation? What are the sources of variations?
Or
(b) Give a brief note on ecological isolation.
14. (a) What are the salient features of mullerian mimicry?
Or
(b) List out the adaptations of aquatic forms.

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15. (a) Give a short note on trends in human evolution.

Or

- (b) Clarify the zoogeography of Australian region.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Give an elaborate account on homologous organs.

Or

- (b) Analyse the embryological evidences of evolution.

17. (a) Describe the principles of Darwinism with examples.

Or

- (b) Highlight the principles of Lamarckism with examples.

18. (a) Explain in detail about Hardy – Weinberg law.

Or

- (b) Give a detailed account on sympatric speciation.

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19. (a) Clarify the protective colouration with examples.

Or

- (b) Compare the adaptations of Cursorial forms with Volant forms.

20. (a) Discuss – evolution of man as seen in the fossil record.

Or

- (b) Write an essay on patterns of animal distribution.

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