



(6 pages)

Reg. No. :

Code No. : 10254 E Sub. Code : AMZO 01

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Sixth Semester

Zoology — Core

EVOLUTION

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Life originated from non-living organic molecules like proteins and _____.
(a) RNA
(b) DNA
(c) Nucleolus
(d) None of the above

2. Species may share similar physical features because the feature was present in a common ancestor

- (a) Analogous structures
- (b) Homologous structures
- (c) Anatomy
- (d) All the above

3. The natural selection theory was first proposed by

- (a) G. Mendal
- (b) Charles Darwin
- (c) Lamarek
- (d) Hugo de Vries

4. _____ is the process of change in all forms of life over generations.

- (a) Genetics
- (b) Evolution
- (c) Mutation
- (d) All the above

5. _____ means that organisms of the same species are separated is called

- (a) Isolation
- (b) Geographic isolation
- (c) Behaviour isolation
- (d) All the above

6. When two groups of organisms are separated by a physical or geographic barrier is called
- (a) allopatric speciation
 - (b) peripatric speciation
 - (c) parapatric and sympatric
 - (d) all the above
7. The chemical basis for repulsion. The evolution of _____.
- (a) Non coloration
 - (b) Coloration
 - (c) Mimicry
 - (d) Warning systems
8. _____ have adapted to cursorial adaptation.
- (a) Horse
 - (b) Emus
 - (c) Dog
 - (d) All the above
9. The Neotropic includes more tropical _____ than any other realm
- (a) Area
 - (b) Water
 - (c) Temperature
 - (d) Forest

10. The geographical distribution of animals is called
- (a) Phytogeography
 - (b) Zoogeography
 - (c) Palaeogeography
 - (d) Anthropography

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) How did life evolve from chemicals?
- Or
- (b) Explain the difference between Homologous and Analogous structures.
12. (a) What are the main points of Lamarck's theory of evolution?
- Or
- (b) Which theory of evolution is proposed by Hugo de Vries?
13. (a) Give an account of the cause of behavioural isolation.
- Or
- (b) How does population genetics support evolution?

14. (a) Explain the various types of protective coloration.

Or

(b) Which one is example of passive volant adaptation?

15. (a) What is the evidence of horse evolution?

Or

(b) Describe the main characteristics of ape man.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)
Each answer should not exceed 600 words.

16. (a) Write brief notes on example of embryological evidence of evolution.

Or

(b) Why is Oparin-Haldane theory important?

17. (a) Explain the various mechanisms of natural selection.

Or

(b) Write about the main points of Darwin's theory.

Page 5 Code No. : 10254 E

18. (a) What are the principles of the Hardy-Weinberg equilibrium?

Or

(b) Enumerate the different mechanisms of speciation.

19. (a) What are the various types of protective coloring?

Or

(b) Give some comment of mimicry and camouflage.

20. (a) Describe the similarities between man and ape.

Or

(b) Write an essay on cultural man evolution.

Page 6 Code No. : 10254 E