

(7 pages)

Reg. No. :

Code No. : 6886

**Sub. Code : KZOM 23/
PZOM 23**

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2018.

Second Semester

Zoology

EVOLUTION

(For those who joined in July 2016 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Chemical reactions could have converted simple organic compounds into _____ for the origin of life.
 - (a) Micromolecules
 - (b) Nitrogen, oxygen and other gases
 - (c) Cells
 - (d) Macromolecules

2. The concept of chemical evolution is based on
 - (a) Possible origin of life by combination of chemicals under suitable environmental conditions
 - (b) Crystallization of chemicals
 - (c) Interaction of water, air and clay under intense heat
 - (d) Effect of solar radiation on chemicals
3. What is meant by the term Darwin fitness?
 - (a) The ability to survive and reproduce
 - (b) High aggressiveness
 - (c) Healthy appearance
 - (d) Physical strength
4. Which one of the following sequences was proposed by Darwin and Wallace for organic evolution?
 - (a) Overproduction, variations, constancy of population size, natural selection
 - (b) Variations, constancy of population size, overproduction, natural selection
 - (c) Overproduction, constancy of population size, variations, natural selection
 - (d) Variations, natural selection, overproduction, constancy of population size

Page 2

Code No. : 6886



PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Discuss Oparin and Haldane concept.

Or

- (b) Explain unicellular evolution.

12. (a) Write a note on Physiological Evidences of Evolution.

Or

- (b) Describe the different forms of fossils.

13. (a) Discuss the gene frequency and its impacts on evolution.

Or

- (b) Describe about sympatric speciation.

14. (a) Explain cave adaptations.

Or

- (b) Discuss the significance of visual pigments on evolution.

Page 5

Code No. : 6886

15. (a) Bring out the cultural factors in human evolution.

Or

- (b) Discuss the cultural evolution of 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 an essay about biochemical origin of life.

Or

- (b) Give a detailed account on experiment of Urey and Miller.

17. (a) Mention the geological time period when the chordates arose. Describe the conditions that favored the origin of chordate.

Or

- (b) Enumerate the evolution evidences from embryology.

Page 6

Code No. : 6886



18. (a) Discuss the Allopatric and sympatric speciation with suitable illustrations.

Or

- (b) Write an essay about migration and its impact on evolution.

19. (a) What is adaptive radiation? Explain it's through Darwin's Finches.

Or

- (b) Describe the reptilian and bird characters of Archaeopteryx with reference to evolutionary significance.

20. (a) Give a detailed account on origin of mammals.

Or

- (b) With reference to the primates discuss their origin and adaptive radiation to lemuroids.

