

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2023
(Fourth Semester)

Branch – ZOOLOGY

EVOLUTION

Time: Three Hours

Maximum: 50 Marks

SECTION-A

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 The first experiment regarding the evolution of life was performed by ____
(i) Watson and Crick (ii) Oparin and Haldane
(iii) Urey and Miller (iv) Meselson and Slant
- 2 Reproduction can occur within members of a ____
(i) Genus (ii) Species
(iii) Family (iv) Order
- 3 When the new species formation occurs is called as ____
(i) Speciation (ii) Isolation
(iii) Evolution (iv) Genetic drift
- 4 Which food habit of Darwin's finches lead to the development of many other varieties?
(i) Fruit eater (ii) Cactus eater
(iii) Insect eater (iv) Seed eater
- 5 The last common ancestor of human is ____
(i) Pan troglodytes (ii) Homo neanderthalensis
(iii) Lemuroidea (iv) Dromaeosaurus

SECTION - B

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Discuss the Redi's experiment.
OR
b. Infer the analogous structures in animal.
- 7 a. List out the salient features of Lamarckism.
OR
b. Discuss the struggle for existence in Darwinism.
- 8 a. State about the mechanism of speciation
OR
b. Classify the types of variations.

Cont...

- 9 a. Distinguish the adaptive convergence and Adaptive divergence.
OR
b. Analyse the convergent evolution in marsupials and placental mammals.
- 10 a. What are causes for human evolution?
OR
b. Explain the evolutionary trends obtained in horse evolution.

SECTION -C

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

- 11 a. Discuss the Urey muller Experiment for the evidences of origin of life.
OR
b. Describe in detail about biochemical origin of life.
- 12 a. What is neo-darwinism? Explain the experimental support for neo-darwinism.
OR
b. Analyse the Darwin's finches and their significance.
- 13 a. Discuss in detail about the sources of variation.
OR
b. Classify the allopatric speciation and sympatric speciation.
- 14 a. What are the causes of adaptive radiation and explain types of adaptive radiation.
OR
b. Determine the parallel evolution with suitable example.
- 15 a. Discuss the cultural evolution of man.
OR
b. Point out the stages of horse evolution and explain the evolution of equus.

Z-Z-Z

END