

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch – ZOOLOGY

EVOLUTION

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. What is the primary mechanism driving evolution?
(i) Natural selection (ii) Genetic drift
(iii) Mutation (iv) All of the above
2. Who proposed the theory of natural selection as a mechanism of evolution?
(i) Charles Darwin (ii) Gregor Mendel
(iii) Lamarck (iv) Alfred Russel Wallace
3. Geographical isolation is a characteristic of:
(i) Allopatric speciation (ii) Sympatric speciation
(iii) Parapatric speciation (iv) Peripatric speciation
4. What is mimicry in biology?
(i) Imitating behavior (ii) Copying genetic material
(iii) Resembling another organism or object (iv) Mimicking vocalizations
5. What is the approximate age of the oldest known hominid fossils?
(i) 1 million years (ii) 3 million years
(iii) 5 million years (iv) 10 million years

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a List out the stages of accounting evolution.
OR
b State the theory of spontaneous generation.
- 7 a Explain the use and disuse theory of Lamarckism.
OR
b Describe the salient features of mutation theory.
- 8 a Narrate the universal occurrence of variations.
OR
b Highlight the stages of allopatric speciation.

Cont...

- 9 a Summarise the theory of parallel evolution.
OR
b Narrate the significance of adaptive radiation.
- 10 a Write down the characteristics of the Equus horse.
OR
b How does Neanderthal man differ from the modern man in appearance?

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Justify the big bang theory of evolution.
OR
b Enumerate the embryological evidence of evolution.
- 12 a Illustrate the Natural Selection theory of Darwinism.
OR
b Explain the fossil evidence of evolution and its significance.
- 13 a Discuss the geographic isolation mechanism of evolution.
OR
b Differentiate the sympatric and parapatric speciation.
- 14 a Explain the adaptive radiation in Darwin finches.
OR
b Trace the principle of Batesian mimicry and their advantages.
- 15 a Discuss the evolution history of Orohippus Horse.
OR
b Assume the future evolution of man and their characteristics.

Z-Z-Z

END