

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**M.Sc. DEGREE EXAMINATION – ZOOLOGY****FIRST SEMESTER – NOVEMBER 2022****PZO1MC03 – ETHOLOGY AND EVOLUTIONARY BIOLOGY**

Date: 28-11-2022

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

SECTION A**Answer ALL the questions**

1	Define	(5 x 1 = 5)	
a)	Instinctive behavior	K1	CO1
b)	Reproductive success	K1	CO1
c)	Evolution	K1	CO1
d)	Sympatric speciation	K1	CO1
e)	Darwinian medicine	K1	CO1
2	Fill in the blanks	(5 x 1 = 5)	
a)	_____ behaviour is learned by experience.	K2	CO1
b)	_____ is the altruistic behaviour of animals that involves only a single species.	K2	CO1
c)	Give any one of the major classes of biological macromolecules _____.	K2	CO1
d)	_____ is a pattern of evolution in which two interacting species influence each other's adaptive changes over the time.	K2	CO1
e)	The brains of invertebrates vary considerably in structure and _____	K2	CO1

SECTION B**Answer any THREE of the following in 500 words****(3 x 10 = 30)**

3	Write an account on learning through the Pavlov's experiment.	K3	CO2
4	Explain the behavioural changes on domestication.	K3	CO2
5	Explain the contributions of Gregor Mendel in the field of genetics.	K3	CO2
6	Explain the important applications of ancient DNA.	K3	CO2
7	Write down the current evolutionary features of humans.	K3	CO2

SECTION C**Answer any TWO of the following in 500 words****(2 x 12.5 = 25)**

8	Explain the primary and secondary defense mechanism in animals.	K4	CO3
9	Explain the basic two types of animal learning with examples.	K4	CO3
10	Analyse the functions of aerobic and anaerobic metabolism in animals.	K4	CO3
11	Elaborate on the factors affecting human evolution and its future scenarios.	K4	CO3

SECTION D

Answer any ONE of the following in 1000 words

(1 x 15 = 15)

12	Summarize the concepts and theories of evolution.	K5	CO4
13	Correlate nervous system and behaviour of invertebrates.	K5	CO4

SECTION E

Answer any ONE of the following in 1000 words

(1 x 20 = 20)

14	“Dispersal is basically an ecological process which is an adaptive part of life history of every animal species”- Defend.	K6	CO5
15	Bring out a detailed account on the origin of life from chemical evolution to biological evolution. Give a supportive view using Miller-Urey Experiment.	K6	CO5

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