GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Biological and Life sciences

Bachelor of Science Honours in Biomedical Science
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem V - C2UA503T - Evolutionary Biology

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	What is the difference between K-selection and r-selection	K1	(2)
2)	Discuss the biological, morphological, and phylogenetic species concepts and their applications in understanding speciation.	K2	(4)
3)	Discuss the concept of k-adaptation and r-adaptation strategies and how they relate to the life history and reproductive patterns of species.	K2	(6)
4)	Compare and contrast genetic load, mutational load, and segregation load.	K3	(9)
5)	Assess the significance of the Hardy-Weinberg law of equilibrium in understanding the forces that maintain genetic stability within populations.	K3	(9)
6)	Elucidate the concept of cell differentiation, explaining how specific cell types acquire their unique functions during embryonic development.	K5	(10)
7)	Compare and contrast the processes of cleavage and gastrulation in early embryogenesis,	K4	(12)
8)	Detail the major events of early embryonic development and discuss the significance of each event.	K5	(15)
9)	Describe the Cenozoic era, known as the "Age of Mammals." Discuss the major geological events, the diversification of mammals, and the rise of modern humans during this era.	K5	(15)
10)	Compare the similarities and differences in the early and late embryonic.	K6	(18)