School of Biological and Life sciences

Department of Biological and Life Sciences
Mid Term Examination

Exam Date: 03 Oct 2023
Time : 90 Minutes
Marks : 50

Sem V - C2UA503T - Evolutionary Biology

Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1)	Discuss the three germ layers formed during gastrulation.	K2	(2)
2)	Explain how did Darwin's theory of natural selection revolutionize our understanding of species diversity?	K1	(3)
3)	Discuss how molecular evidence, such as DNA sequences, support the theory of evolution?	K2	(4)
4)	Discuss how does morphology and comparative anatomy (tectology) provide evidence for organic evolution?	K2	(6)
5)	Analyze the role of homeotic genes in development.	K3	(6)
6)	Assess the Hardy-Weinberg law of equilibrium. What are the assumptions made by this principle, and what conditions can disrupt this equilibrium within a population?	K3	(9)
7)	Define speciation and explain the various modes of speciation, including phyletic, quantum, and gradual speciation.	K4	(8)
8)	Elaborate on the key stages of embryogenesis, highlighting the major events that occur during each stage and how they contribute to the formation of a functional embryo.	K4	(12)

OR

	How does fertilization occur, and what are the key events that take place during this process?	K4	(12)