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**School of Biological and Life sciences**

Bachelor of Science Honours in Biomedical Science

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

**Sem III - C2UA302T - Evolutionary and Developmental 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 Carbon dating. K2 (2)
- 2) Briefly discuss about the theory of abiogenesis. K1 (3)
- 3) What is speciation? Elucidate the allopatric mode of speciation. K2 (4)
- 4) Critically outline the main points of theory of natural selection. K2 (6)
- 5) Distinguish between following pair: A) Allopatric and Sympatric mode of speciation 2) theory of biogenesis and spontaneous generation K3 (6)
- 6) Elucidate Hardy- Weinberg equilibrium and conditions for its maintenance. K3 (9)
- 7) Define Hardy-Weinberg equilibrium and its significans. 360 out of 1000 individuals in a population have a genotype of AA while 480 have Aa genotype. The rest 160 belong to aa. Calculate the frequency of allele A in this population. K4 (8)
- 8) Briefly analyze the types of fossil and process of fossil formation. K4 (12)

**OR**

- Briefly elucidate the concepts of Lamarckism, Darwinism and Modern synthetic theory of evolution, K4 (12)