

School of Biological and Life sciences

**Master of Science in Zoology
Semester End Examination - Jun 2024**

**Duration : 180 Minutes
Max Marks : 100**

Sem II - P1PN206B - Biology of Vertebrates*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*

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| 1) | What is retrogressive metamorphosis | K1(2) |
| 2) | State the differences between prototheria and theria | K2(4) |
| 3) | Summarize the evolutionary advantages of different types of locomotory appendages in relation to specific environmental conditions. | K2(6) |
| 4) | Classify the class Reptilia along with examples | K3(9) |
| 5) | Illustrate characteristic features of Class Mammalia. | K3(9) |
| 6) | Discuss the unique anatomical features of Sphenodon and its evolutionary significance. | K5(10) |
| 7) | State the differences between class aves and mammalia. | K4(12) |
| 8) | Compare and contrast the reproductive strategies and morphological features of Balanoglossus, Branchiostoma (Amphioxus), and Herdmania. | K5(15) |
| 9) | Evaluate the physiological mechanisms involved in osmoregulation in both freshwater and marine fish | K5(15) |
| 10) | You have been given 2 fishes A and B which differ in the presence or absence of operculum. Identify to which class both the fishes belong, write down the major characteristics of both the classes and also the adaptation for osmoregulation in both freshwater and marine water, | K6(18) |