

Question 1: Indicate the relationships of the Chordata by means of a cladogram. (15)

Question 2: Draw a labeled diagrammatic sketch of the splanchnocranium of the shark and show the position and composition of the branchial arches. (8)

Question 3: Draw a diagram illustrating the main arterial system as seen in the fish. Label the arteries as well as the organs supplied with blood and the parts of the blood vascular system connected to the arteries. (7)

Question 4: Draw a diagram of the digestive system of a reptile. (8)

Question 5: List in point form (a) the characteristics that birds have in common with dinosaurs and (b) those characteristics that are newly evolved characteristics only found in modern birds and not in dinosaurs. (40)

Question 6: Name the functions of the circulatory system. (6)

Question 7: Name the soft tissue structures which are commonly used to describe mammals. Mammals originated approximately 200 million years ago however and these soft tissues are not preserved in the fossil record. What skeletal characteristics could one use to identify these fossils as mammals? (16)