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B.Sc HONS Part-III Paper - VII

Topic:- Faunistic peculiarities of Mesozoic ERA

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Q. 1. Describe the faunistic peculiarities of Mesozoic era.

Ans. This era is divided into three periods.

(a) The Triassic Period : There was not much change in the variety and form of invertebrates, in this period the vertebrate population showed a marked difference. The amphibians were slowly declining. The reptilian ancestors were radiating into new lines of adaptation. Most abundant forms of reptiles were the lizard-like carnivores and long herbivores. They disappeared by the end of Triassic leaving their single offshoot represented by modern turtles and tortoises. Non-placental or egg laying mammals had developed. Some of these are still found in Australia and New Zealand.

(b) The Jurassic Period : For the remaining 160 million years of the mesozoic age, reptiles were the most dominant vertebrates, mammals had gone ahead a little more, while birds had just originated. Amongst plants pine trees reaching a height of 65 metres were common, flowering plants had not yet gained prominence.

Among the Reptiles of Jurassic were fish-like Ichthyosaurus living in the great seas and the Plesiosaurus with long neck and paddle like limbs for swimming. Plesiosaurus ranged from 1.5 to 15 meters in length. Crocodile like reptiles also lived in the seas. True lizards first appeared in this period.

Dinosaurs : The king reptiles seemed determined to dominate the land in future. They were small in Jurassic period, giants came in the next period. Stegosaurus, a dinosaur, was about 10 metres long and in 1975. The skeleton of a 14 meters long herbivorous dinosaur was recovered from Lower Jurassic rocks of southern India. It was named Barapasaurus tagorei. It is estimated to be 160 million years old. First birds originated from the reptiles in this period from some small-size dinosaurs. These dinosaurs, ancestral to birds were adapted for running. Their fore limbs were reduced and birds were adapted for running. Their fore limbs were reduced and hind limbs well developed. A fossil bird from Jurassic called Archaeopteryx was about the size of a crow and teeth on the jaws. It had many reptilian features.

(c) Cretaceous Period : The climax and fall of reptiles come in this last 70 million years period of mesozoic era. Tyranosurus of the cretaceous was the largest bipedal carnivore. It stood about 6 metres high. reached a length of about 15 meters, with a skull about a metre long and a body weight of about 10 tonnes. Diplodocus was the longest herbivorous dinosaur. Reaching a length of 22 metres. Branchiosaurus was about 24 metres long but heaviest of all about 50 tonnes some of the reptiles even went to air and become flying reptiles, the pterosaurs. They were fish eaters and used to glide from tree tops to the earth.

A dramatic change took place before the close of cretaceous. Dinosaurs disappeared from the scene because they could not face the cooler climate at this time, land was lifted up many places. Thus making life of heavy bodied dinosaurs almost impossible. Mammals and birds being warmblooded did not find the changing atmosphere difficult and few reptiles were left.